DOCUMENT RESUME

ED 148 373 IR 005 485

AUTHOR	Heydinger, Richard B.; And Others
TITLE	College IV: The Evolution of an Experiment in Self-Paced Instruction. Final Report.
INSTITUTION	Formative Evaluation Research Associates, Ann Arbor, Mich.
PUB DATE	May 77
NOTE	77p.
EDRS PRICE	MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS	Community Involvement; *Curriculum Development; *Curriculum Evaluation; Educational Innovation; Evaluation; *Individualized Programs; Learning Modules; Mastery Learning; *Open Education; Performance Based Education; *Post Secondary Education; Programed Instruction
IDENTIFIERS	*College IV; Grand Valley State Colleges MI

ABSTRACT

College IV, a cluster college of Grand Valley State College (GVSC), was established to eliminate many of the traditional barriers of access to education, particularly for the working adult. This report traces the formation and evolution of this four-year liberal arts college from its planning (1972-73) to its fourth year of operation (1976-77). In the beginning, the curriculum was based on self-paced modules and liberal registration procedures. There were no letter grades, only mastery of the course objectives was accepted. Over its four years of operation, College IV has experienced some significant changes. Modules have become courses; and although most courses retain the self-paced format, many are taught in a classroom situation. Letter grades are given for course work, and students must demonstrate a set of generic competencies before they can graduate. The college has also experienced changes in leadership with the current dean being the third person to hold that position. Today, in addition to a liberal arts degree, College IV offers bachelor's degrees in applied studies and five vocational programs. (Author/VT)

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COLLEGE IV:

THE EVOLUTION OF AN EXPERIMENT IN SELF-PACED INSTRUCTION

Final Report

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FORMATIVE EVALUATION RESEARCH ASSOCIATES

Ann Arbor, Michigan

May 1977

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ACKNOWLEDGEMENTS

In completing a project as large as this evaluation, along the way many people make their special contribution. Bob Toft deserves a special thanks for having the vision to incorporate evaluation as a major component of College IV's founding. His willingness to contract with a group of four graduate students as an evaluation team led to the formation of FERA, Inc. The Fund for the Improvement of Post-Secondary Education and particularly David Justice always encouraged our work. The College IV National Advisory Board (Pat Cross, Lee Harrisberger, Minor Keeler, Ohmer Milton, Gil Sherman, and Ed Weidner) were extremely useful in supporting our work and suggesting alternative interpretations. Their encouragement in many ways motivated us to establish Formative Evaluation Research Associates as a permanent organization. A special note of thanks to the College IV support staff who responded to each of our requests regardless of how large or small. Finally, without the support of the various constituencies of respondents our work would have been impossible. Students and tutors gave their time for both interviews and surveys. They were a never ending source of stimulation for us. The administration of GVSC were most open and supportive of our work. But no group deserves more commendation than the faculty of College IV. They approached this evaluation with an openness, candor, and enthusiasm which made FERA's work most rewarding. We formed many friendships with faculty which will continue long into the future.

Just as College IV was founded, developed, and has changed, so has FERA. The two organizations were born together and the two learned from each other. As College IV was testing its theories and assumptions about self-pacing, FERA was evolving its philosophy of evaluation. Undoubtedly this influenced the style and spirit which characterized this evaluation effort. FERA is deeply indebted to College IV for providing us with an opportunity to execute this large undertaking. We hope that College IV was well served with interesting and useful information and that our presence provided a valuable perspective to the evaluation of College IV. Further we hope the learnings from College IV are valuable to the post-secondary community.

Richard B. Heydinger
Project Director
May, 1977

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INTRODUCTION

The philosophical thrust of College IV, a four-year liberal arts college, was vividly characterized by the first student who registered. A middle-aged mother radiated the excitement that everyone felt as she shook hands with the Dean and became the first student at College IV. The time-free, space-free curricular structure of this college would allow this woman to study at her own pace until she had completely mastered the material. Moreover, she could simultaneously fulfill her family responsibilities while studying in her free time at home.

Like this woman, hundreds of adults in western Michigan sought out College IV because of its flexibility and sensitivity to their needs. A group of traditional college-age freshmen also enrolled. They were full-time, degree-seeking students who had selected College IV because of its pacing flexibility and open admissions policy.

Yet most of these College IV students completed only a few credits. They progressed through the curriculum at a very slow pace, and over half of them eventually would opt out of College IV by simply not completing the modules for which they had registered.

This report traces the formation and evolution of one of the most interesting experiments in post-secondary education. College IV was established with the specific intent of eliminating many of the traditional barriers of access to education, particularly for the working adult. The curricular structure was "atomized" so that very small units of study could be meaningfully undertaken. Traditional five-credit courses were divided into 5-10 modules, each taking 8-12 hours to complete and each assigned a half credit. Students were free to register for modules at any time throughout the academic year and take as long as they needed to master the material. There were no letter grades, only mastery of the course objectives was accepted.

Yet since its opening four years ago, College IV has experienced some significant changes. Modules have become courses; and although most courses

retain the self-paced format, many are caught in a classroom situation. Letter grades are given for course work, and students must demonstrate a set of generic competencies before they can graduate. The college has also experienced changes in leadership, with the current dean being the third person to hold that position in four years. Today in addition to a liberal arts degree, College IV offers bachelor's degrees in applied studies and five vocational programs.

In reading this report, one should not think in terms of success or failure. Instead, this report should be read with an eye toward tracing a significant experiment in American higher education from its inception to the present. College IV's experience provides a commentary on self-paced instruction, on establishing new programs, on curricular innovation, and on the traditional characteristics of time dependent, location specific instruction. Hopefully educational leaders and change agents will learn from both College IV's strengths and its limitations.

This report is organized into six chapters and a multi-volume appendix. Chapters 1-5 chronologically trace the development of College IV through its first four years, 1973 to 1977. Chapter 1 describes the founding of College IV with Chapters 2-5 each describing one of the years in College IV's history. These chapters trace the important issues encountered by the college through a combination of description and analysis. Chapter 6, the final chapter, builds on the experiences of these four years and summarizes what has been learned from the experiences at College IV. The four volume appendix is a compilation of the evaluation reports which FERA produced throughout its two and one-half year involvement as the external evaluation team for College IV. These reports weigh the issues which are discussed in the final report and provide the research evidence which supports the conclusions that are drawn. Appendix A in the final report contains an annotated bibliography of these evaluation reports.*

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*Additional copies of the final report and any of the research reports may be ordered through FERA. See the first page of the bibliography for information on ordering reports.

CHAPTER 1

THE PLANNING & ESTABLISHMENT OF COLLEGE IV

College IV was spawned from a conversation between the President of Grand Valley, Arend Lubbers, and the future Dean of College IV, Robert Toft. Both men recognized a series of societal trends to which higher education should speak.

Lubbers and his staff saw the need for increased flexibility in offering education to prospective students. Increasingly, older full-time employed people wanted to attend college -- either to obtain a degree, to upgrade their skills for job advancement, or to pursue a special interest.

Toft in his work at NSF had recognized the inherent flexibilities and capabilities of a modularized, self-paced instructional format. Indeed, Toft had already mapped out the structure of an entirely self-paced college.

While Toft was on the GVSC campus interviewing for another position, he and Lubbers discussed their complimentary ideas. As a result Bob Toft was hired, not for the job for which he had interviewed, but to plan and implement a fourth cluster college at Grand Valley. Since each of the other cluster colleges (except the traditional College of Arts and Sciences) had been established with a specific pedagogical thrust, a self-paced college would add a variety to the cluster which could serve still another facet of the potential post-secondary population.

Dr. Toft spent his first year at GVSC (1972-73) generating ideas, writing a proposal, and developing specific plans for this new college. The final proposal called attention to a series of contemporary trends in post-secondary education, and point-by-point demonstrated how College IV spoke to each of these issues. In essence these trends were the assumptions on which the plans for College IV were built.*

The College IV proposal assumed that many men and women could not devote full time to college. Moreover, these potential students wanted academic recognition of their previous experience while being given a chance to upgrade

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* See Appendix B for a statement of College IV's philosophy.

their vocational skills. The proposal highlighted the "instant gratification" dependence which youth had acquired from television and the contemporary society. College IV was to wean students from this dependence and afford them an opportunity to develop the skills necessary to work independently.

The College IV proposal assumed that faculty had the concurrent needs of more meaningful interaction with students and more opportunities to be active in scholarship. Finally, the curriculum in this new college would meet students on their own terms, providing them with instant feedback. Grade anxiety was to be eliminated by requiring all students for each module to pass a criterion-referenced examination certifying their mastery of the material. With this, a learning partnership between faculty and students would be established with the result being a healthier, more fulfilling learning environment for all.

To accomplish these lofty goals, a self-paced, mastery form of instruction was proposed. Although many self-paced programs had been developed, College IV was to be the first college-wide self-paced curriculum in the country. In this baccalaureate institution, the "freshman-sophomore" curriculum was to be largely auto-instructional utilizing modules for text material. Modules were not only to be printed but also would use a variety of media and other forms of non-traditional presentation.

Academic work was to be literally self-paced with students having the flexibility to complete a module in "6 hours, 6 days, or 6 years." To receive credit for a module, a student had to master at least ninety percent of the module's behavioral objectives. As a result, all College IV students would be doing "A" level work, as the College IV literature pointed out. Underlying this approach was the philosophical assumption that students could completely master academic material if they were given sufficient time. There would be no "gentleman's C" at College IV.

As students approached their "junior year" they would be gradually weaned from the individual, auto-instructional format. Group projects utilizing clusters of modules and contract study would become the predominant mode of study. Finally, graduating seniors were to overcome the atomization effect of the modular approach by constructing an interdisciplinary, "capstone" experience.

Thus, a graduate of College IV would be able to demonstrate competence as an independent worker who did not need instant gratification to execute complex responsibilities. The proposal recognized the growing emphasis on vocational skills, while at the same time citing the importance of the liberal arts and calling for their reorganization. A heavy emphasis in the liberal arts would prepare these students for any future our society might encounter. The graduates would be well-rounded in both vocational skills and the broad competencies of the liberal arts.

College IV was also to be intimately linked with the Grand Rapids community through a panel of business leaders who would speak to the vocational needs of the community. This linkage would guarantee that College IV offered the vocational skills which the community most needed. Most importantly, this radical educational structure would speak directly to the growing concerns for cost-effective instruction. With a relatively small number of faculty and minimal space requirements, this form of self-paced instruction would offer an important and viable alternative for post-secondary education.

After its developmental year the proposal envisioned that College IV would literally have thousands of modules, and the institution could become a national clearinghouse for modularized course materials. The variety of modules available would far exceed the course offerings of a college of comparable size.

It was this basic structure which the Fund for the Improvement of Post-Secondary Education supported with a thirty month grant for $566,000. The National Science Foundation added a grant of $105,000 to fund a series of visiting professors who would assist in the development of the College IV curriculum.

COLLEGE IV TAKES SHAPE

Robert Toft, serving as the college's first dean, set out to recruit faculty members to staff this innovative institution. Although it was originally hoped that ten faculty members would be hired, monies were available to hire only seven, each from a different liberal arts discipline.* Three criteria were used in hiring College IV faculty members. First, and most

* The original seven faculty at College IV represented the following disciplines: biology, chemistry, economics, English & speech, mathematics, psychology, and sociology.

importantly, candidates had to demonstrate a dedication and a zeal to the philosophy of self-pacing. This required an interest in students as well as an interest in changing the traditional structure of post-secondary education. Secondly, faculty members were hired on their perceived compatibility to get along as a group. The final although not overriding factor was the individual's experience with self-paced instruction. Two faculty members had "modularized" entire courses and were able to bring these with them to College IV. Other faculty had experience with self-pacing on an experimental basis in their courses, and one faculty member had no experience in teaching a self-paced course.

These faculty included six men and one woman, ranging in age from the early thirties to the late fifties. Six of the seven had Ph.D.'s from a variety of good, but not highly prestigious graduate institutions.

THE FIRST SUMMER WORKSHOP

To plan for the opening of College IV and to develop curriculum for the "freshman year," an eight-week summer workshop was held for the College IV faculty and staff.

As might be expected, a large portion of the first month was consumed by getting to know each other and becoming familiar with Grand Valley. Workshops were held which discussed the use of media and available GVSC support services. As the weeks passed some faculty felt that too much time was being spent on non-productive discussions of educational philosophy, while other faculty commented that not enough time was devoted to debating the philosophical assumptions on which College IV was founded. Midway through the summer the temporary faculty quarters were exchanged for individual offices as College IV moved into its permanent home.

As the second month of the workshop began, only seven weeks before the opening of College IV, a number of characteristics were in evidence. Although many modules were in the writing stage, few actually had been completed. The dean, showing concern for the lack of curriculum production, laid out a rigid production schedule for each faculty member. Though some faculty resented this intrusion, most recognized its necessity to guarantee that curriculum be available on opening day.

In late August the faculty began the final push to complete the modules for opening day. The pace became hectic and people worked incredibly long hours. As time pressures mounted, faculty resorted to curricular styles which they knew best and with which they felt most comfortable...the written word. Time was not available to produce a multi-media module. By mid-September, College IV had the skeleton of a freshman-year curriculum. In retrospect, it is most amazing that a college was created in this short time span. The Dean had devoted less than one year to planning and recruiting faculty. The faculty had pulled together the skeleton of an entirely new curriculum in ten weeks.

In retrospect it is interesting to note the different approaches which faculty members used in producing their modular curriculum. Some faculty updated the self-paced materials which they had developed previously. Other faculty recognized that they could not improve on traditional texts and wrote behavioral objectives and study guides for self-paced learning of the materials. Some faculty rejected existing text materials and wrote their own. As the pressures of the summer mounted, those faculty who had decided to author their own modules were forced to adopt study guides as an interim step for opening day. Few, if any faculty members, made extensive use of modularized materials that existed commercially or through other colleges and universities.

As part of FERA's evaluation work, faculty were asked to reflect on the strengths and weaknesses of this first summer workshop. The series of weaknesses and improvements suggested by faculty and staff were characterized as follows. Quite obviously, the summer workshop was simply too short a time to develop a freshman year curriculum. Faculty members even noted this two years later in a series of exit interviews. Originally it was planned that the College IV faculty members would spend the first academic year <u>revising</u> the "freshman year" modules. Thus during the second summer faculty would be ready to produce a sophomore year curriculum. Because the entire freshman year curriculum had not been completed by the opening of College IV, faculty members had the dual chores throughout the first year of producing curriculum and tutoring students.

Second, the goals which both the dean and the individual faculty members laid out for themselves for the summer were overly ambitious. Those who did have experience producing modules were able to accurately target their expectations. However, those who had little experience with module production fell far short of their personal objectives. The plan in the original proposal for

producing a full-year of curricular material in a summer workshop was simply too ambitious. In retrospect it is interesting to note how this plan for the summer workshop was developed. In writing the College IV proposal, Dean Toft worked with a series of consultants who had considerable experience in producing modules. This group of experts seemingly used their personal rate of productivity in advising on the production of the College IV curriculum. By the very fact that these people had risen to the top of their profession as module producers, this group of consultants was some of the most productive people in the field. Thus, their production should not have been equated with the more typical productivity of the ordinary faculty member.

Third, faculty members noted that although each day was to consist of discussion, writing, and a gripe session, after the first week of the workshop this schedule was no longer followed. Although time pressures may have dictated that this schedule be changed, faculty members commented in retrospect that adherence to this schedule may have increased their productivity.

Finally, in opening a new college there is a host of administrative details and chores which must be given attention. For example, faculty members must become familiar with the campus, enroll in pension plans, and order lab supplies. All of these take an undue amount of time in a new environment, and at College IV these chores had a detrimental impact on curriculum production.

These issues notwithstanding, College IV opened with a great deal of enthusiasm. Certainly there were many positive outcomes which emerged from the summer workshop. First, faculty had the freedom to develop their curriculum in the direction in which they regarded as most appropriate. Faculty were appreciative of this "academic freedom" and cited it as a strength of College IV. Secondly, faculty were extremely enthusiastic and dedicated to what they were doing. It was obvious to the evaluation team that in many ways this was a unique group of individuals who were giving not only of their professional careers but their personal lives to break down many of the traditional barriers in post-secondary education. These faculty were obviously dedicated to students and wanted to facilitate their educational development. Finally, and most importantly perhaps, this group of seven faculty members was able to get along with each other. An honesty and harmony which is seldom

seen in academia characterized the working relationship of these faculty. They joined with each other in critiquing their work and striving for the opening of this unique college.

CHAPTER 2

THE FIRST YEAR AT COLLEGE IV
(1973-1974)

The initial wave of approximately two hundred students who enrolled at College IV in September, 1973, fell into two distinct groups. Roughly half[1] the students were "traditional college-age" students -- between the ages of eighteen and twenty-one years. The remainder of the student body could be termed "adult" and carried with it the many characteristics of family, career, income level and personal development that this terminology implies. Half the students labeled themselves as "part-time," approximately sixty percent were working, and thirty percent lived in campus dormitories.

As a group these first College IV students were more intrinsically than extrinsically motivated. They were attending College IV to develop their cognitive skills and critical thinking rather than to obtain vocational training. In contrast to the students in the more traditional GVSC College of Arts and Sciences (CAS), many College IV students had already experienced what the CAS students were seeking.[2]

The first few weeks at College IV were characterized by students meeting with their faculty advisors to discuss a course of study, familiarizing themselves with the modular system, and beginning work on their first modules. At the opening of the college only 45 different modules were available and most of these were in mimeograph form. These limitations were overcome,

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[1] The statistics cited in this report are taken from FERA research reports. They should be construed not as precise measures but as general indicators. Some of the research findings are taken from carefully drawn samples; others from work that relied on the response rates to questionnaires. In all cases, care was taken by the research team not to mislead the reader. For those who are interested, each evaluation report carefully explains the methodology which was used.

[2] See report #2 for a complete analysis of the College IV's first students.

however, by the enthusiasm of the students and faculty. Many students were grateful to have an opportunity to attend college in this "flexible" mode. The College IV faculty were stimulated by the large amount of meaningful contact with students. Many of the barriers created by the traditional academic lockstep had been removed, with both students and faculty feeling a tremendous sense of accomplishment.

As the fall months passed the euphoria subsided. After the initial period of intense contact with students, faculty members noted a lack of interaction with students. Students were not seeking out faculty for tutorials nor was there a large demand for mastery examinations.

By mid-November faculty members expressed deep concern with this emerging issue. In a college with no deadlines and no scheduled meeting times, it was impossible to determine who was "still" enrolled in college and who in fact had decided to "opt out." With a new college that had no experience on which to base its reactions, concern over this issue ran high. Faculty were estimating that any where from 40% to 70% of the students who had registered for a module had not returned to the college to discuss their work or take a mastery examination.

Because of this concern, in early December FERA interviewed a random sample of thirty-one College IV students. This interview had two themes: students' satisfaction with College IV and students' dissatisfaction with their own progress through the curriculum.*

In some way the feedback from these interviews was reassuring. Eighty-six percent of the respondents were either "very" or "quite" satisfied with their College IV experience.

Specific reactions portrayed the students' enthusiasm:

> I wouldn't be in college if it weren't for College IV. The faculty will do anything to help you out.
>
> I'm satisfied because educational units are cut down in smaller sections where you can understand them and the class doesn't get ahead of you.
>
> College IV gives people a choice and suits people's personalities.

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* See report #1.

However, this same positive picture was not found when students were asked if they were satisfied with their own progress through the College IV curriculum. Over half (52%) of the students said they were not satisfied with their rate of module completion. Students often commented that while they valued the freedom and responsibility which College IV gave them, it was difficult to discipline themselves. When progress was slow it was not attributed to College IV or its pedagogical system. Instead, students blamed themselves, their personality, and their lifestyle.

Almost without exception, this new mode of learning confronted the College IV student with motivation and self-discipline dilemmas. As one student expressed it, "College IV allows me to relax enough so I can really learn. But, each student has to find that line between relaxation and being lazy."

Interestingly, a greater percentage of women than men were not satisfied with their own progress. Also, more 18-20 year olds than 21-63 year olds, and more unemployed individuals than those employed were dissatisfied with their progress.

When asked what personal characteristics were necessary to be a good College IV student, the sample responded overwhelmingly that motivation and self-discipline were the most important characteristics. The overriding feeling was not to blame College IV for these problems, but to recognize that barriers to progress do exist, and that those barriers lie mainly within the individual student's lifestyle.

Also as part of these initial interviews, students were asked to cite the major problems they saw confronting College IV. In addition to the pacing dilemmas cited above, students focused on two other issues: curricular expansion and personal contact. In the limited time College IV had been open (a little more than two months), some students were pushing the limits of the modularized curriculum. Not surprisingly, students cited the need to expand the available curriculum.

When asked if the amount of personal contact with College IV faculty and students was "about right, too little or too much" -- 56% said contact was about right; 44% said too little, and no one indicated there was too much personal contact. Those who wanted more personal contact wanted it with faculty

members, student tutors, and other students. The reasons for wanting more contact related to both social development ("I have a need to socialize more") and academic development ("I want somebody to bounce my ideas off of").

Thus, although a majority of students felt the amount of personal contact was "about right," a significant percentage of the population was asking for more personal interaction. The implications of this issue are vividly demonstrated in the following quote:

> "Without other people around, I don't get the feeling I'm at a real college."

As we shall see, the issues of curriculum development, self-pacing, and personal contact emerged early in College IV's development. They are a thread which runs through the first three years of the institution's existence.

CREDIT GENERATION AS A PROBLEM

Interviews with students throughout the first year attested to the high degree of satisfaction they experienced in their interactions with faculty members. Students appreciated the freedom and flexibility of College IV, yet these same students continually expressed dissatisfaction with their academic progress. By summer of the first year, half* the College IV students were contemplating transferring or dropping out. Lack of course selection and problems in motivating oneself were most often cited as reasons for considering transferring.

A downward spiral characterized the "non-pacers." For example, the longer a student stayed away from College IV work for whatever reasons, the more difficult it was to begin again.** Those students who were satisfied with their academic progress were characterized by a high, positive energy level. The full-time, residential, traditional college-age student generally did not

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* This percentage does not include students who cross-registered from other GVSC colleges. See report #5.

** See report #3.

fare well in this system. Conversely, the non-traditional student valued the solitude of module study, largely because his/her life was filled with other responsibilities and social contact.

These issues of pacing and credit generation certainly did not go unrecognized by College IV. In interviews conducted with faculty, tutors, and staff during Spring of the first year,* student procrastination was cited as a major problem. As a result, an orientation office was established. All students entering College IV were introduced to modular instruction by a module on how to take modules. The self-discipline and motivation necessary to be a successful self-pacer were emphasized. Students were required to complete this module before going on to their first discipline-oriented unit.

The faculty also took steps to improve credit generation. Some faculty asked students to chart their academic goals, so that if the student desired the faculty would contact them when they fell behind their self-imposed objectives. Faculty also telephoned students and/or wrote letters to keep in touch with them. As the evaluation team discovered, simply contacting people to arrange an interview for evaluation purposes was sometimes a motivator to return to College IV. In the course of an interview a student might learn that she/he was not the only one who was having pacing problems. Also, the fact that the evaluation team was interested in each individual as a College IV student also convinced some perspective "opt-outs" to continue their academic work.

Data collected at the end of the first academic year showed that of the 262 students enrolled exclusively as College IV students, 165 of them had completed two or fewer modules.** In the entire first year (September 1973-August 1974) College IV with its seven full-time faculty generated 1707 credits. If we assume that a full-time student would earn 45 quarter credits per year, then College IV had a student-faculty ratio of 5.4 to 1, far below the GVSC norm of 20 to 1. Throughout the year the total number of credits earned at College IV had continued to increase. Yet during the same period, the number of students College IV was serving also increased. Thus the ratio of credits per student remained relatively stable, ranging from 1.6 to 2.0 credits per student per month. Although the total number of credits was increasing, pacing problems continued to plague College IV.

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* See report #22.

** See report #5.

To further understand the opening year, it is useful to focus on two other aspects of College IV: the development of the modular curriculum and the roles and activities of the faculty. When these factors are juxtaposed with the issue of pacing, the evolution of College IV is further illuminated.

THE DEVELOPMENT AND EVALUATION OF THE MODULAR CURRICULUM

As described previously, College IV had set aside the summer prior to its opening for the design and development of the modules for the "freshman" year. With all the chores associated with opening a new college, this time was insufficient. Even without the pressures of opening and getting to know each other, the faculty probably could not have planned and written the modules necessary for an entire year of curriculum.

As a result, these students who quickly completed modules or who entered with advanced standing were "topping out" of the curriculum as early as November. Almost immediately students wanted more modules in the existing disciplines. They also expressed a desire for the college to expand its curricular offering into other academic fields.

Although the lack of curriculum was bothersome to some students, feedback on the existing modules was very positive. Eighty-four percent of the students returning module evaluation forms in the first year rated the modules as "good" or "superior." Ninety-five percent of students agreed that the objectvies for the modules were very clear and 93% of these students felt that what they learned was consistent with the objectives of the module. The majority of students indicated that faculty members were readily available for consultation, the materials necessary to complete the modules were easily obtainable, and the assigned readings were stimulating and thought provoking.* Indeed, module evaluation data was very positive about each of the components of the modules. Thus the available curriculum had been rated favorably but curriculum availability had become a problem.

College IV found itself in the midst of converging issues. A large percentage of the students were completing few if any of their modules. Procrastination had become a problem which demanded immediate faculty attention. At the same time, the successful self-pacers had completed the available modules, and they were eagerly waiting for the faculty to complete additional curriculum

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* See report #11.

materials. The faculty were caught in the cross-fire of how best to spend their time. Would it be tutoring, producing curriculum, or tackling the procrastination issue? The next section attests to the strains placed on these faculty as a result of these conflicting demands.

THE ROLES OF FACULTY IN A SELF-PACED ENVIRONMENT

In an environment which so radically departs from the traditional educational milieu not only does the student occupy a different role, but the life of a faculty member is changed drastically. There are no lectures to prepare, no classes to meet. Instead, there are modules to produce and individual tutorials covering a variety of academic and personal topics.

As evaluation data showed,* during the first year the College IV faculty invested more time and effort in "curriculum production" than any other single activity (See Tables 1 and 2). Faculty cited curriculum production as their most difficult work while frequently mentioning it as their best and poorest work, all within the same week. Student tutoring and institutional service were the next two most time consuming activities, each occupying 28% of the "average" faculty member's work week. Given that College IV was a new institution, it is not surprising that a large percentage of time was devoted to committee work and policy decisions ("institutional service"). Nevertheless, faculty members expressed frustration over the time necessary to complete this work, particularly in light of the curriculum production work that remained to be done. Not surprisingly, faculty indicated they devoted little effort to institutional service and frequently cited it as their poorest work.

ROLE STRAINS

Role pressures in this time-free, space-free college revolved around five interdependent issues.

First, time pressures at College IV created a strain. Faculty members commented on the long hours they worked and the little time they had for relaxation. The number of hours worked per week as reported by faculty ranged

* See reports 14 and 15.

from a low of 37 hours per week to a high of 63 hours, the average being 53 hours. The source of this strain was self-imposed by the College IV faculty member who wanted to tutor students as well as take the time to produce coherent, comprehensive curriculum materials. Similarly these strains were also externally imposed by an eager student body who enjoyed personal faculty contact.

The second strain was created by the new set of behaviors which this non-traditional environment demanded of the faculty. Instead of having the teaching role limited and organized by class schedules, the College IV faculty member was on a demand-call basis. During this time not only did the faculty member tutor, but she/he was also an academic counselor, personal counselor, and friend. This expanded the number of overlapping roles which a College IV faculty member held and created a set of tensions which were the norm rather than the exception. As one College IV faculty member said, "You must be able to set priorities and know how to tell the students no (when that becomes necessary)."

This led to the third strain, the tension between curriculum production and tutoring. Both had to be done, but there did not seem to be time to meet personal goals in each area. Faculty members wanted to produce good materials yet tutoring frequently pushed this production effort into late night hours or weekends. One faculty member who was obviously devoted to the role of tutor summarized the tension by saying, "There is a publish or perish syndrome in College IV with respect to modules." Interviews led the evaluation team to conclude that, as students were "tutored" through modules, they demanded more curriculum. Yet as curriculum was produced, students demanded more tutoring. The tension was obviously circular.

The fourth strain was created by the time demanded for committee meetings and other administrative duties. Faculty frequently cited this as a major burden. Because there were a large number of tasks and a small number of people, faculty found themselves tenuously spread across many different activities. As one faculty member pointed out, a one-person department required that all departmental administration (e.g., curriculum planning, advising, course descriptions) must be handled by the sole departmental member.

TABLE 1
WEEKLY TOTALS BY ACTIVITY
(all figures in hours)

	Group Average	Range of Individual Averages	Group Category Average	Range of Individual Category Averages
TEACHING ACTIVITIES			35.6	26.2 - 53.5
	Average	**Range**		
1. Individual Student Tutoring	5.2	1.7 - 7.4		
2. Mastery Examinations	4.6	.7 -10.0		
3. Contract Study	3.1	.3 -13.0		
4. Group Seminars or Group Tutoring	1.2	0 - 3.7		
5. Academic Counseling of Students	3.5	1.1 - 7.3		
6. Curriculum Design	1.1	0 - 3.5		
7. Module Creation	13.0	4.0 -18.5		
8. Module Modification	2.0	0 - 7.0		
9. Instructional Development	1.3	0 - 4.5		
10. Personal Counseling	.6	0 - 2.5		
SCHOLARLY ACTIVITIES			2.2	0 - 8.1
	Average	**Range**		
11. Scholarly Reading	1.9	0 - 6.4		
12. Research Projects and Publications	.3	0 - 1.8		
13. Professional Activities	.1	0 - .5		
INSTITUTIONAL SERVICE ACTIVITIES			14.5	4.0 - 24.0
	Average	**Range**		
14. Campus Organizations	.1	0 - .6		
15. College IV Administrative Committees*	2.4	2.0 - 5.0		
16. GVSC Administrative Committees	2.5	0 - 7.4		
17. Institutional Relations	1.9	0 - 8.0		
PUBLIC SERVICE ACTIVITIES			.2	0 - 1.0
	Average	**Range**		
18. Off-Campus Service	0	0		
19. Consulting Service	.2	0 - 1.0		

Total hours/week 52.6

*Also included in this is administrative committee work of a non-committee nature such as record keeping, etc.

TABLE 2

FACULTY ACTIVITIES

(all figures in percentage of time/week)

Faculty Activities*	Report of Actual Time
Student Tutoring	27%
includes: -- Individual Student Tutoring -- Mastery Examinations -- Contract Study -- Group Seminars or Group Tutoring	
Academic Counseling of Students	7%
Personal Counseling of Students	1%
Curriculum Production Activities	34%
includes: -- Curriculum Design -- Module Creation -- Module Modification -- Instructional Development	
Scholarly Activities	4%
Institutional Service Activities	28%
Public Service Activities	0%

* See report # 15 for the activities included in each of these categories.

These four strains contributed to the fifth stain, the lack of time that faculty could devote to maintaining their scholarly competence. Faculty members did not possess the time to read journals, engage in research, and do the host of activities which helped them stay current in their discipline. One faculty member pointed to the difficulty in staying abreast of a complex field when working only on introductory material. This strain led some faculty to question their role at College IV particularly as it related to their long-term professional goals.

ORGANIZATIONAL FACTORS IMPINGING ON COLLEGE IV'S OPENING YEAR

To round out the analysis of College IV's first year, a number of additional organizational factors should be noted.

A self-paced, time-free institution totally alters the demands it places on institutional support services. The records office must have the flexibility to allow students to register for and complete a module on any given day. Data processing support requires an interactive mode of operation or at least frequent updating of student transcripts. Because most text materials are printed modules authored by faculty members, heavy demands are placed on the campus printing facilities. Auto-instructional materials can require a large amount of support from the audio-visual department. Counseling and financial aid offices must reorient their thinking to a time-free entry and exit policy. Federal programs such as Veterans Benefits are totally unsuited to handle the time-free curricular structure, and special institutional policies must be made to interface with the systems that are oriented to the traditional academic lockstep.

Because College IV was founded within an existing cluster of colleges, institutional support services already existed. Effective procedures had been established and these offices had had a great deal of experience. Obviously, this was a double-edged sword. College IV demanded an entirely different set of procedures. In many cases, a support service now had to operate in two distinct modes -- one for College IV and one for the other GVSC colleges.

Generally, the attitude of the administrative services was positive with respect to College IV, yet these offices were naive in gauging the implications of a self-paced system. With College IV under pressure to produce curriculum and to establish its own academic policies, the College IV administration could not and did not take the time to thoroughly inform the support services of the many ramifications of a self-paced system.

A second aspect of organizational functioning was the support which College IV received from the Central Administration of GVSC. From FERA's evaluative data,** the perceived support and communication patterns with the Central Administration can be traced. From the summer workshop through the first six months of College IV's operation, the faculty and administration noted the high levels of support which they received from the Central Administration. As the initial mood of enthusiasm wore off and serious questions were raised about the credit generation of College IV, communication and support from the Central Administration began to change. One year after the opening of College IV the faculty and administration portrayed their communication with the Central Administration as "poor." Moreover, there were significant differences of opinion on the appropriate amount of influence which the Central Administration should have with regard to development of the curriculum. The faculty and Dean felt the GVSC administration should have "iittle or no" influence on curricular development whereas Central Administrators felt they should have "moderate" influence. This difference was a harbinger of the growing issue of curriculum development.

Although these facets of College IV's organizational structure were critical to opening year, the leadership of Dean Toft was undoubtedly the most pervasive influence on the evolution of College IV as an organization.

The leadership style of the Dean* during the first year was characterized very positively. Energetic, decisive, open, pragmatic, effective and informed were the adjectives most frequently mentioned by staff, tutors, and faculty.

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* Permission to single out the Dean in this manner has been obtained.

** See report #20.

The Dean was characterized as "giving lots of decisions to his subordinates" and "full of action and decisiveness but always open to others' opinions and group consensus." Decisions were getting made and the reaction to the process was generally favorable. Some pepole did express reservations about this leadership style for the future. There was a feeling that there was "not enough debate on important issues" and certain decisions were "quick and spur of the moment."

As the next chapter shows, many of the organizational issues which people cited at the end of the first year grew larger in the subsequent two years and became major issues for College IV.

SUMMARY OF YEAR ONE

The first year at College IV was truly exciting for all involved. Many of the time worn access barriers to education had been eliminated. Students were learning at their own pace in a truly time-free, space-free educational system. Although the available curriculum was not as extensive as originally envisioned, significant progress had been made in producing a "college-wide matrix of auto-instructional" modules. Most importantly, a college had been created which placed all responsibility for learning on the students. The faculty who were hired were unyielding in their devotion to students.

Despite these successes, College IV faced a number of serious challenges. A significant amount of work remained to be done not only on the "freshman" curriculum but on the materials for the remainder of the degree program. Students were not progressing through the curriculum at a rate that even closely resembled an acceptable student-faculty credit generation ratio. Relationships with the GVSC Central Administration were beginning to deteriorate. Yet a general mood of optimism remained. The faculty had an entire summer workshop to produce curriculum and to catch-up. There was little doubt that College IV had laid out for itself an admirable set of broad-ranging goals. The faculty and administration had worked incredibly hard this first year to make progress in attaining these goals. It was this context which ushered in the second year of College IV.

CHAPTER 3

THE SECOND YEAR: "A FAILURE TO STABILIZE" (1974-1975)

A number of developments during College IV's second year were important. In many ways they were unrelated, yet when taken together they begin to demonstrate how College IV was pulled in many different directions. It was to be an exhausting year for the college. Progress was made in increasing the amount of credit produced and in developing the curriculum. College IV literally extended itself into the surrounding communities. But it also was a year that the College failed to stabilize itself. It did not narrow its focus and its leadership changed hands. "It was a roller coaster of a year."

College IV began its second year with expanded faculty resources. Three permanent faculty had been added, bringing the total number of full-time College IV faculty to ten. An historian, a social psychologist, and a second biologist expanded the breadth of the faculty. What was puzzling about these selections was the choice of a biologist to fill one of these faculty slots. College IV already had one biologist, and there was not a particularly large student demand for biology modules. With a college that badly needed to expand its curricular offerings, this decision seemed questionable. Nevertheless, the addition of three new faculty members was a significant expansion. The college now had more people available to generate curriculum, to tutor students, and to handle the myriad of committee assignments and other institutional responsibilities. These three new members joined the College IV faculty at the beginning of the summer workshop and immediately began developing their own curriculum materials.

The second year also marked College IV's continued expansion of its outreach function. With its space-free curriculum, College IV could reach out to a range of citizens who usually would not be able to "attend" college. A modest program was established in the county jail through which inmates could complete college work. Also, a weekly program in a large furniture factory was set-up. One day a week tutoring and testing was offered at the

plant site to those employees who wanted to complete college work. But perhaps most exciting was the module mobile. Christened in the spring of 1975, it was literally a college on wheels. Inside this trailer was a complete selection of all modules, lab materials, eight study stations, and audio-visual devices. On a weekly basis the module mobile visited a major shopping center, a large industry, a regional school, and an adult education center. It served the dual purpose of advertising College IV and tutoring students in their locale. If they desired, students could enroll and complete college courses without ever going to the Grand Valley campus.

The module mobile served a group of students much like the other College IV students. Although some what older (average age 33), students who utilized the mobile campus were both degree and non-degree students. Some were cross-registrants from other GVSC colleges while others were exclusively College IV students. The college hired a young man with a master's degree in counseling to be in charge of this program. Working with a student tutor, this team would provide tutoring in all disciplines. Frequently they also served as admissions and orientation counselors for those interested in College IV.

The mobile campus vividly demonstrated the flexibility and transportability of the modular approach. College instruction could reach out into the community. Although performing a significant outreach function, the module mobile experienced the same low credit generation patterns that characterized campus instruction. During the winter quarter of 1975, the module mobile was generating only thirteen credits per week.*

Midway through the second year, College IV experienced the most significant event in its brief history. Dean Toft resigned. For many months he had misgivings about his position. Toft was an "idea" person. He had conceived and planned College IV. Yet his skills were not in implementing or maintaining an organization. He felt that his relations with the faculty were deteriorating, but most importantly he recognized that his skills and interests were not suited to being a dean. Although the Dean's resignation was not totally unexpected, it postponed the development and stabilization of this young institution. At the time faculty needed to devote their full energies to curriculum production and increasing student credit generation. Instead, the college turned

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* All data collected by Phil Knight, module mobile instructor.

a major part of its attention to finding a new dean, and a search committee was formed.

The Dean's resignation hastened the development of a number of trends which were already in motion. Because of Toft's misgivings about his leadership, he had been turning over more and more of the leadership decisions to the faculty. His resignation completed this process. Although somewhat bewildered, the faculty assumed the initiative and continued to develop their plans for college policy in a number of important areas. A college-wide governance document was drafted and discussed. It proposed that a Community Council be established composed of the dean, assistant dean, all faculty, and a number of student representatives. The chairperson would be elected from the faculty. Standing committees and their responsibilities were laid out. Also, a search procedure for the dean and the dean's responsibilities were carefully articulated. In the spring of 1975, this governance structure was approved by the faculty and administration.

In the first year, the governance of the college had vascillated between a participative democracy and a firm management approach guided by the Dean. The new Community Council created a broad base democracy in which all citizens of the College IV community would have input to policy decisions. It formalized the governance spirit which the faculty wanted, for they realized that their future was in their own hands. As a result, the governance of the institution was to occupy a significant percentage of the time and energies of the College IV faculty.

Recognizing the college's need for some definite direction, the Community Council charged the Goal's Committee with writing an institutional goals statement. After considerable discussion amongst the faculty, a goals statement was agreed upon. A summary of the goals statement is ably presented by Zelda Gamson in her case study on College IV:

> The final goals statement reiterated College IV's commitment to a liberal arts education which "directs its energies toward developing in our students those personal qualities which make effective human beings, ones who can create their own options within the world of learning and within the world of work."*

* Goals Statement, May 8, 1975, p. 1.

The goals statement pointed to the distinctiveness of College IV as deriving both from its emphasis on expanding educational opportunity for people who have been excluded from higher education and from its unique instructional system which allows temporal and spatial flexibility. From its behavioral objectives approach, College IV can define and assess its goals and outcomes more adequately than more conventional liberal arts programs. College IV's two major objectives, then are:

I. Training in the liberal arts in which the dimensions of the liberal arts are defined as competencies exhibited by students and institutional structures which are directed to supporting the training.

II. An instructional system which is highly accessible and which accommodates diverse learning styles.

These objectives are spelled out in more detail as they affect planning for students, curriculum and instructional structure. It is important to pay particular attention to this first statement of the competencies which laid the groundwork for later work. The goals document says that the college was to provide opportunities for students to develop cognitive skills, which included investigative skills, problem-solving skills, analysis skills, critical thinking, objectivity, ability to synthesize, and effective decision-making. It was to provide for basic knowledge of an ability to use major social institutions; an historical perspective of events; a social-cultural perspective; an interdisciplinary perspective; and deep involvement in formal inquiry in at least one area. Students should have an operating style and value system which meant becoming involved aesthetically; clarifying their value systems; developing self-motivation; developing goal direction; developing self-confidence. Social relationships should help students develop social and political responsiveness and ability to communicate effectively with others.*

The formulation of these institutional goals marked a turning point for the college. Prior to this time, attention had been focused on the college's modular delivery system. The means of education rather than its ends had been the focus. This is not surprising given the tremendous amount of national attention the institution was receiving for being a "total time-free, space-free college." The goals statement oriented the college and faculty toward

* "Competency Education at College IV or Can a Small Cluster College in the Midwest Start a New Life at Age Three?" by Zelda Gamson, unpublished, first draft, May, 1976. This case study is one of eight case studies comprising a FIPSE-funded project conducted by the Educational Policy Research Center at Syracuse University. This project examines competency-based learning in post-secondary education.

educational outcomes. Moreover, it marked the first step in establishing a degree based on competencies. Since its opening, College IV had discussed the possibility of establishing a competency-based degree, yet no one at College IV was quite sure what that entailed. It was decided that a portion of the summer workshop would be devoted to investigating competencies.

As if there were not enough developments bubbling within College IV, two others surfaced. Grand Valley was about to build a new classroom building. Since College IV was extremely cramped in its current space, it seemed natural to devote a portion of this new building to College IV. Dean Toft worked with his staff and faculty to arrive at a floor plan which reflected the unique space requirements of self-paced instruction. Certainly this positive development must have enthused the students and faculty, for it testified to College IV's permanence. The planning and design of the new building, however, was one more example of the necessary but distracting maintenance functions which occupied faculty members.

More distracting and far less productive than a new building was the idea of establishing a residential segment of College IV. Without describing this idea in great detail, it was proposed that Grand Valley set aside a portion of one dormitory in which only College IV students would live. Faculty could then move some of their offices into the dormitory and tutoring would take place there. Weekend courses would be offered in residence to those who wanted to spend a few days away from home. This residential approach would create a community environment which the college lacked. Those faculty seeking closer ties with students found this notion particularly attractive. Yet after discussion with the Central Administration and an examination of the costs involved, the idea was scrapped.

The consideration of a residential college demonstrated an important condition at College IV. The college lacked a clear focus of <u>who</u> it was attempting to serve and <u>in what way</u>. With the inherent flexibility of the modular system, many different educational programs were viable alternatives. Yet with the institution focused on its delivery system, there was no clear vision of institutional mission. The initial proposal outlining College IV had put forth many different programmatic alternatives. Unbeknownst, the college was still "trying out" different program models to increase credit generation and promote institutional growth.

Throughout the spring the search for a new Dean continued. Finally two candidates were brought to the campus for interviews. The first candidate impressed both the faculty and the GVSC Central Administration. An offer was about to be made when the candidate announced that he was removing himself from consideration. After a campus visit by the second candidate, the faculty again were enthusiastic. Their enthusiasm, however, was deflated when the Central Administration refused to offer this candidate the position.

After a search process which consumed most of the spring, College IV still did not have a new dean. The search was closed and Carl Arendsen, the Assistant Dean, was appointed acting dean. With temporary leadership the College began its third of three summer workshops.

Before reviewing these summer activities, it is useful to reflect on the research evidence collected on the students during the second year. This discussion will add a final and important perspective to the second year of College IV.

STUDENT DEVELOPMENT

During the second year of College IV, students were enrolling in increasing numbers and the total credits generated had increased dramatically. In the first year College IV had produced 1707 credits whereas in the second year 4054 credits were earned. An examination of the characteristics of the students entering College IV portrays the nature of the student body during the second year.* Of the students enrolling for the first time in College IV, slightly more than half (56%) were male and slightly less than half (46%) were 25 years in age or older. Sixty-eight percent of these entering students worked and 55% of the working group was employed at least 40 hours per week. College IV was obviously attracting a significant number of older, working students.

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* The data discussed in this section were collected from the students matriculating at College IV between January and June, 1975. Undoubtedly this population under represents the traditional aged, full-time students who would most likely enroll in the fall months. More details on these data can be found in report #7.

In contrast to the registrants of the first year, this group of students was attending college for more instrumental reasons. "Vocational training" and "background for further study" were more important to this group of students than the first year registrants. These students had enrolled because of the flexibility, self-pacing, and freedom which College IV provided. Of least importance to these students was the prospect of meeting all types of people, having no grades, and modular education per se.**

Fifty-five percent of the students registering for College IV modules were cross-registering from other GVSC cluster colleges. Because of their course work in other colleges, these students did not represent a potential source for full-time credit in College IV. Of these (45%) who did categorize themselves as "College IV" students (and not cross-registrants), 57% of them were working full-time. Only 32% of the College IV students expected to work "three or more hours per day" on College IV work. Thus most matriculants at College IV were part-time students. Their energies were directed primarily at their work or at their studies in other GVSC colleges. This factor had serious implications for the levels of credit which College IV students could be expected to earn. Although "procrastination" may have been the term we all used to define the source of the low credit generation problem, the nature of the student body -- not in motivational terms, but their commitment to College IV -- may have been the root of the credit generation issue.

Of the students who enrolled in College IV between January and June, 1975, 36% of them had still not earned any credit by September, 1975.*** Another 21% were earning credit at a rate of less than one-half credit each two month period. Only 25% of the students earned one or more credits per two month period.

Interviews in the spring of 1975 with students who were involved with the college* showed them to be highly satisfied with their College IV experience. The quality of contact with faculty was assessed as "high," yet these students expressed themselves as being only "somewhat" satisfied with their academic

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* "Involved" means that a student was actively studying, taking mastery exams, and generating credit.

** See report #6.

*** See report #7.

progress. Even for those students who were earning credit, there was a residual of dissatisfaction, knowing that they could accomplish more.

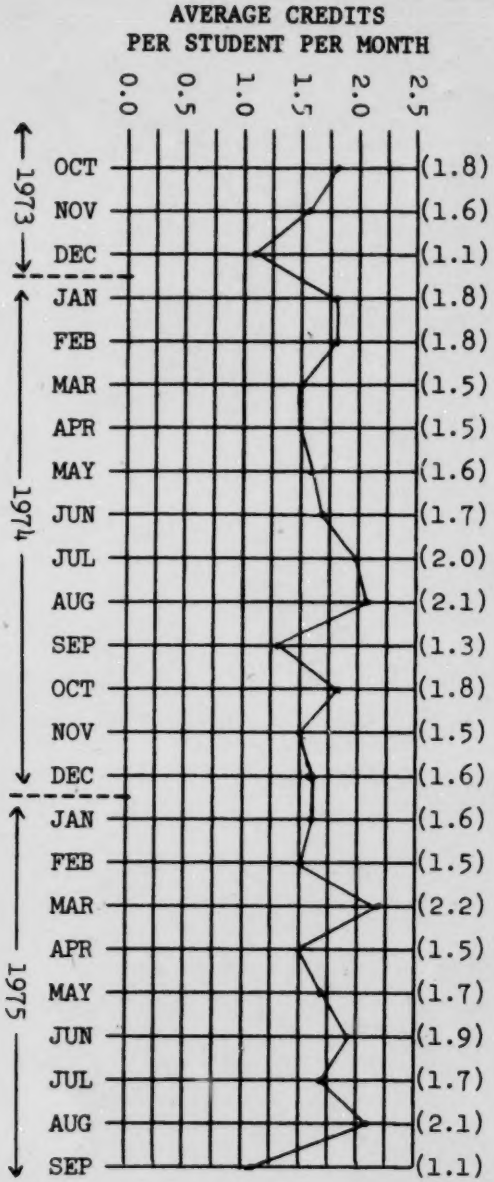
When asked to cite the strengths of College IV these same students focused on the self-pacing format of the curriculum and faculty interactions. Weaknesses cited revolved around space problems, procedural matters, and lack of curriculum. With the increase in size of the student body, the space allocated to College IV had become too small. This situation would be alleviated in the fall with the opening of the new building. Procedural matters such as record-keeping and lack of curriculum were problems that had their roots in the first year of College IV and obviously, they had continued to bother students.

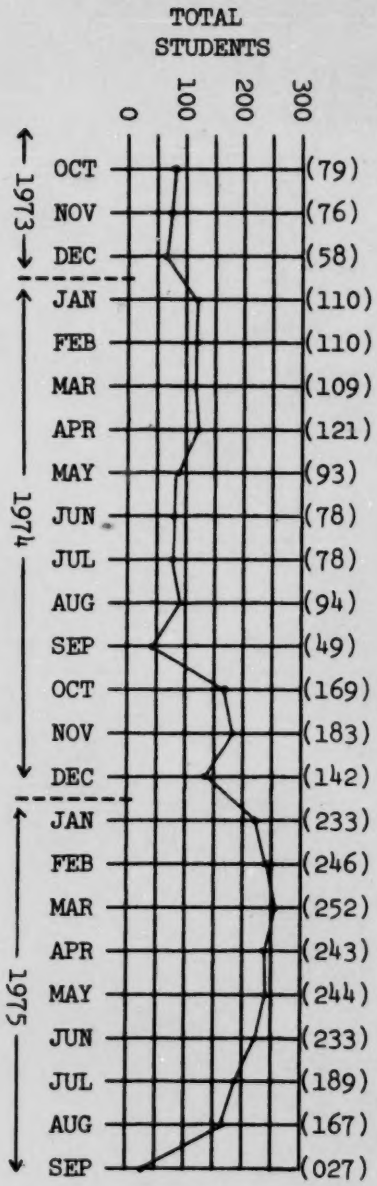
SUMMARY

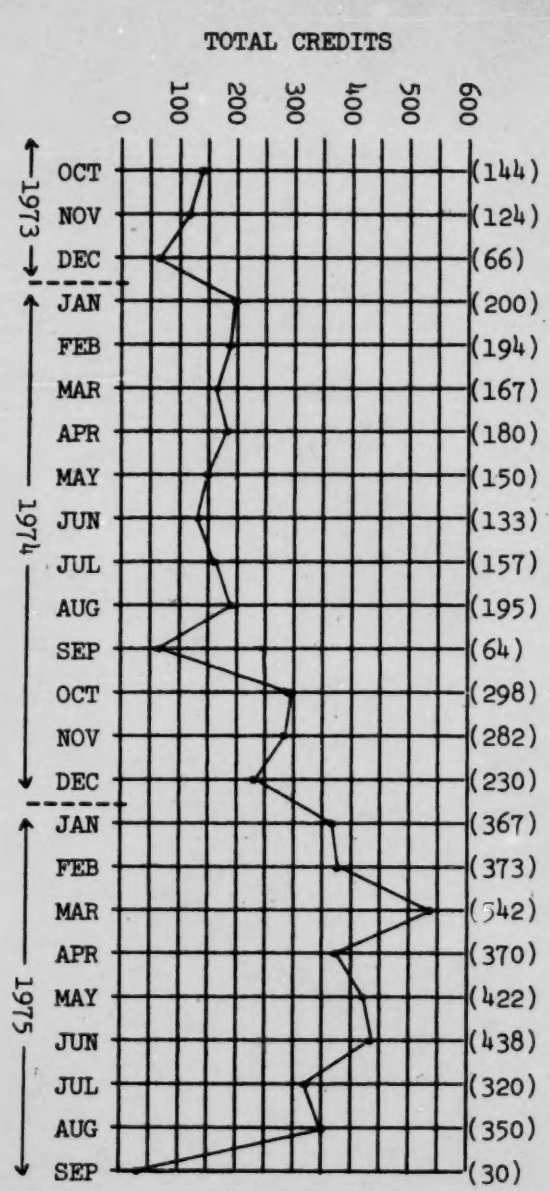
The second year of College IV had been an emotional one. The Dean and founder of this innovation had resigned, and a replacement had not been found. Leadership of the college had been transferred from the dean to the faculty. At the same time, the college had taken a number of positive steps. Through a great deal of hard work by the faculty, the curriculum had been expanded so that by the end of the second year over 400 modules were available. A goals statement had been formulated which outlined a series of general competencies as graduation requirements. A new college governance system in the form of a Community Council had successfully been established.

Yet the College IV environment had not stabilized. Although the total credits of the college had increased dramatically, the average number of credits each student was earning had remained the same (see graphs on following page). The college had not narrowed its focus in terms of the type of student it was going to serve. College IV seemed to be most suited to the part-time, non-traditional student. Yet to be a full-fledged liberal arts college in the GVSC cluster, College IV needed its own full-time student body. The faculty knew this and were continually striving for this goal.

Most importantly, the faculty still possessed their commitment to the innovation. After two years of intense work the spirit of cooperation remained. The faculty along with the acting dean embarked on the summer workshop with a goal of designing competency-based graduation requirements and expanding the modular curriculum.







MONTHLY CREDIT GENERATION STATISTICS

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CHAPTER 4

THE THIRD YEAR: A YEAR OF MAINTENANCE AND CONTINUED OPERATION (1975-1976)

THE WORKSHOP ON COMPETENCIES

After the formulation of the College IV goals statement, there was a great deal of discussion on how best to implement a competency-based degree. In fact, most faculty were not sure what a "competency-based approach" really implied. Therefore, the College IV Goals Committee, working with FERA, decided to hold a workshop on competency education. This workshop would serve three broad purposes: 1) to review and discuss alternative approaches to competency-based education, 2) to gain an understanding of the institutional and personal implications of adopting a competency program, and 3) to translate this information into an action plan for College IV. This "mini" workshop was scheduled for the first three days of the summer curriculum workshop. Two days were devoted to collecting information from outside experts. The final day would be devoted to designing a curriculum development plan for College IV. Perhaps this plan would contain a competency component, perhaps not. That would depend on the decisions made at the workshop.

A number of outside resource people who had considerable experience with competency-based education were invited to make presentations. Resource people in attendance were from the CUE Center (Competency-based Undergraduate Education) at Bowling Green State University, Mars Hill College (North Carolina), Alverno College (Wisconsin), and the Center for the Study of Higher Education at the University of Michigan. Two questions were foremost on the minds of College IV faculty. First, how does competency-based education relate to what we are already doing? Second, what resources (both human and financial) are necessary to develop and implement a competency-based curriculum?

By the end of the three day conference these questions had been answered, and the faculty had more or less agreed on an overall plan for the College IV curriculum. The faculty learned that the criterion-referenced behavioral

objectives of each module in fact were course specific competencies. Therefore, at the course level College IV had already developed a competency curriculum. However, a College IV degree was not based on "generic competencies" such as critical thinking, problem solving, or communication skills.

In the final day of this conference the faculty proposed a curriculum model that would require a set of generic competencies instead of the usual distribution requirements of most liberal arts curricula. In a typical path through the curriculum, a student would first complete these general education competencies (e.g., problem solving, critical thinking) and then move into advanced work in a major field. Before graduating the student would complete an interdisciplinary "capstone" project. The organization of the curriculum could be typified as an hour glass with broad general education requirements at the introductory level, followed by training for in-depth skills in a major, and finally completing a broad experience for graduation.

Proposing this curriculum model was a significant step forward for College IV, for it marked the first time that the faculty had articulated an integrated curriculum structure. One or two faculty expressed serious reservations about the new approach. They objected because the workshop had convinced them of the tremendous effort involved in moving toward a generic competency model. Moreover, the support from the central administration was questionable, particularly since one of the faculty's candidates for dean had been rejected. Finally, the faculty was exhausted and the modularization of the curriculum was not even finished. Taking on a second developmental approach would be too taxing.

Although these objections were heard, the College decided to move ahead in developing the curriculum materials for generic competencies. Most sensibly, the college examined its available resources and set priorities for the development of generic competencies. Materials would be developed first for "communication skills" and "critical thinking" because the college had faculty who had already developed similar programs at other institutions.

College IV had made its first major curricular decision since it opened. The remainder of the summer and much of the curriculum development work during the college's third year reflected this decision. While some faculty continued to develop modules in their own discipline, competency task forces began their work.

THE SHIFT TO A THEMATIC CURRICULUM AND CLASSROOM INSTRUCTION

As the third year progressed, two other developments occurred which affected the evolution of the College IV curriculum. Although the decision had been made to move to a competency-based curriculum, the central administration recognized that College IV still did not have an academic program which appealed to the contemporary, vocationally oriented student. The content had to be appealing, and the liberal arts packaged in the classical disciplines was not what GVSC needed. In the eyes of the administration, if College IV was to generate more credit it had to teach academic content that appealed to students. Students did not opt for a curriculum simply because of its delivery style.

As the pressure mounted from the central administration, the acting dean stepped into the breach and worked with the faculty to develop some broad "themes" which the college might publicize. Building on the competency material developed for communication skills, the college organized a thematic program in "communications consultancy." Students completing this program would possess demonstrated skills in the use of communications in business (e.g., advertising, media, intra-organizational communication). The thematic curriculum was a compromise between a faculty that was oriented toward the liberal arts and an institutional administration which was pushing hard for vocational programs. As shall be discussed later, this division between the faculty and the administration continued to widen.

The second development marked the beginning of a change in the pedagogical delivery system at College IV. As the competency task forces continued their development work, it became obvious that there was a less time-consuming, probably easier way to teach competencies than with modules. Also, faculty were tired of producing modules. The competency curriculum could be offered to students more quickly if the material were taught in classes. Thus, College IV began to offer modules with designated meeting times. Although some of the reading materials were modularized and the course objectives were spelled out as criterion-referenced measures, the traditional classroom had become part of the instructional system. In the first two years, discussion groups had been held and workshops on specified topics had been offered. However, classes with specified

meeting times were the initial step in returning to the conventional academic system. As we shall see later, this was the first of many steps back toward the "middle of the road."

LEADERSHIP DURING THE THIRD YEAR

As described previously, the search for a new dean had been unsuccessful. Therefore, on July 1, 1975, the assistant dean, Dr. Carl Arendsen, was named acting dean and a new assistant, Dr. Reid Holland, was appointed from the faculty. This interim team, although plagued by many of the problems that face any temporary administration, solved a number of pressing problems. The record keeping system was improved and bureaucratic procedures within the college were greatly simplified. Both Arendsen and Holland pushed for the continued development of the college by writing grant proposals and making public presentations on College IV. However, in contrast to the first dean, Arendsen's focus was largely internal. He involved the faculty in discussions on the curriculum and orchestrated the adoption of a thematic curriculum.

Although the faculty recognized the inherent limitations placed on an acting dean, they were complimentary of Arendsen and his organizational skills. He was not expected to lead the college in new directions, for he did not possess the formal nor informal endorsement necessary for effective leadership. Nevertheless Dean Arendsen worked well in the role of a "maintainer."

SELF-PACING RECOGNIZED AS A COMPETENCY

As indicated throughout this report, the successful self-pacing of students had been an issue since the opening months of College IV. Simply stated, students were not completing credits at a rate they had intended nor in quantities sufficient to maintain the current operating level of the College. Because of the gravity of this issue, the evaluation team agreed with College IV to focus its final research on the factors which determine a student's credit generating pace.

As a result of this research the evaluation team concluded that self-pacing was a competency. Like critical thinking or communication skills,

students had to develop self-pacing competencies. The academic lockstep of prior educational experiences did not promote nor develop the skills necessary to be a successful self-pacer. Such skills as self-discipline, organization, and willingness to begin work had to be developed gradually. This would require a patient, supportive environment.

Thus in its final feedback session* the evaluation team made the following recommendations:

1. Recognize the interdependence between academic progress and the development of self-pacing competency.
2. Design a pedagogical support system which will provide students with an opportunity to develop self-pacing skills. Such a support system would have the following characteristics:
    a. It would utilize the information which students self-report at the time of entrance and which can reveal potential problems in successful self-pacing.
    b. It would work with students to establish an individualized program of self-pacing skill development. This program might include voluntary deadlines, periodic checks on progress, and assistance in overcoming deficiencies in self-pacing skills such as concentration, beginning course work, and time allocation.
    c. It would work with students to guarantee that they develop a supportive "niche" at College IV. This might include both faculty support and peer support.
    d. Such a system would assist students in such a way that eventually each College IV student would recognize the skills required to be a successful "self-pacer."

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* See report #8.

e. This system would provide periodic reviews for students, giving them a feeling of goal attainment and closure.

3. Recognize the inherent limitations in the type of students you are presently attracting with regard to credit earning potential. College IV students have many demands on their time; and in contrast to most colleges, these students may not have the flexibility in their schedules to devote a great deal of time to their education.

Also as part of the final feedback session, FERA presented the challenges which confronted the college in the immediate future. In February of its third year, FERA expressed the challenges facing College IV as follows:

- Continue to focus the curriculum;
- Create a faculty development program related to personal, organizational, and instructional development;
- Maximize the attractiveness and utility of the new College IV building;
- Develop indicators of goal achievement and then monitor progress;
- Maximize and stabilize leadership;
- Fully utilize the potential of the student tutor;
- Maximize the potential of College IV as a time-free space-free institution;
- Adapt GVSC support systems as fully as possible to the needs of College IV;
- Develop a systematic program for facilitating the academic progress of students;
- Continue to interpret the College IV system to those who matter:
  - GVSC community
  - potential students
  - employers
  - graduate schools
- Concentrate on growth until College IV reaches at least a "critical mass;"
- Periodically reflect on the college's potential and limitations.

From this inventory, the major challenges facing College IV focused on curriculum, institutional growth, and leadership.

At this point, February 1976, FERA ended its formal involvement with College IV. Hence the descriptive analysis which follows is based on personal conversations and not research evidence. The remainder of this report describes the evolution of College IV through the last half of its third year and into the fourth year. During this period, initial steps were taken to resolve many of the important issues facing College IV. Undoubtedly, this period was a turning point in the history of College IV.

THE CONTINUING DEBATE ON CURRICULUM

As described earlier, the third year was marked by growing tensions between the central administration and the faculty. The College IV faculty saw itself as liberal arts professors, not designers and implementors of vocational programs. As the central administration became increasingly concerned with the college's inability to generate ample credit, they were convinced that College IV needed to adopt a vocational program. To force some action, the GVSC administration appointed an institution-wide task force to examine College IV's curriculum. This task force was comprised of Dean Arendsen, the faculty chairwoman from College IV, a GVSC vice president, a dean of one of the other cluster colleges, the assistant to the president, the director of admissions, and the director of continuing education.

For obvious reasons the faculty was feeling quite nervous about this task force. They resented having curricular decisions taken out of their hands, and they resisted the idea of vocational programs. In March, 1976, the task force on the College IV curriculum issued its report. Zelda Gamson in her case study summarized this report:

> "The [College IV Curriculum] report pointed to the fact that College IV had not yet established a student constituency of its own but depended heavily on students registered in one of the other Grand Valley colleges. College IV would have to develop new programs, different from those of the other colleges, which could pull in people who would not come to Grand Valley otherwise.

> To this end, the task force recommended that College IV establish a Bachelor of Applied Science degree in professional/technical subjects that would appeal particularly to people with "applied education values" or those with a technical degree from a community college. Five skill areas should form the basis of such a program: communications, managerial/administrative skills, data gathering and analysis, basic scientific principles, and interpersonal relations. These areas would appeal both to people with more applied interests and to those with liberal arts interests. They could make use of existing modules and could be integrated with the beginning work on the competency program, but they would also require new courses, modules, internships and the like. The task force underscored the uniqueness of College IV's modularized approach. In devising the new program, the college should retain all current modules and should modularize new programs as much as possible. But at the same time, the task force urged that new forms, such as lecture/discussion and television also be introduced.
>
> Five major programs from among the large number the task force had discussed seemed feasible: advertising/public relations, occupational safety, real estate, occupational therapy, and travel and leisure management. The attractiveness of the programs should be explored with the community colleges in the area and with local employers.*

What the faculty had hoped would not happen in fact did happen. The task force strongly recommended that the College move into vocational programs. Some of the college faculty recognized the inevitability of such a move, for presently College IV was not attracting enough students. By offering vocational programs it was hoped College IV would attract more full time students.

A NEW DEAN IS HIRED

During the deliberations of this task force, a new dean, P. Douglas Kindschi,

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* Gamson, op. cit., p. 55.

was hired. Kindschi came to College IV from Sangamon State University (Illinois) where he had been Assistant Vice President for Academic Affairs and Dean of Educational Services, his current title. Kindschi had had a wide variety of experiences in academic administration. Conditional to accepting the deanship, Kindschi requested that the curriculum task force be made "advisory" to him. He recognized that College IV needed to offer curricular programs that would attract students and saw no inconsistency in offering vocational programs and the liberal arts.

In the first six months of 1976 College IV had hired a dean and had reoriented the thrust of its curriculum. The next six months would bring about even more changes.

CHAPTER 5

THE FOURTH YEAR: A NEW LOOK FOR COLLEGE IV (1976-1977)

Within a few months after Kindschi's arrival on the campus, sweeping changes were made to College IV. Working closely with the Assistant Dean, Reid Holland, Kindschi drew up a plan for a Bachelor of Applied Science degree. This program would take students with an Associate of Arts degree in a vocational-technical area, transfer up to 95 credits into College IV, and provide them with two years of study in the "liberal arts" competencies. For this work students would then receive the BAS degree. In essence, the training received in vocational skills would serve as the major field of study with competency certification providing the broad education component of the four year degree. Students would be required to demonstrate competencies in communication skills, problem solving, social interaction, values clarification, and the application of basic concepts. A document outlining this curriculum plan was presented to the College's Community Council and was approved.

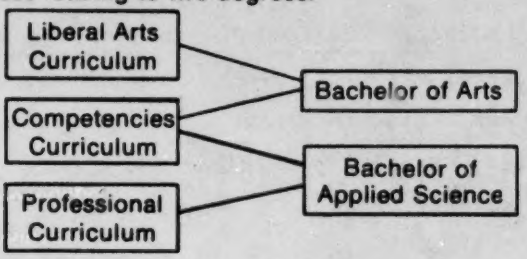
Secondly, the Dean recommended that two career programs be instituted for fall, 1976, one in advertising/public relations and one in occupational safety. Current College IV faculty would staff these programs until funds were available to hire professors who specialized in these areas. The Dean also recommended to the Community Council that planning should continue for other career programs. As approved by the Council, in 1977-78 College IV will be offering two additional career programs: 1) financial institutions, insurance, and real estate, and 2) tourism. Students may still opt for a bachelor of arts degree by choosing one of three divisional majors: humanities, natural sciences, or social sciences.

Because of these changes College IV now is described in its brochure as "A College of Liberal and Professional Studies." The curriculum has "three blocks of courses leading to two degrees" as depicted in the following diagram:

COLLEGE IV

A College of Liberal and Professional Studies

The College IV curriculum has three blocks of courses leading to two degrees.



In this new literature on College IV, the emphasis is on degree programs and academic content. The delivery system has been downplayed and is described simply as follows:

> Instruction in College IV is flexible, with individualized courses which emphasize one-on-one instruction as well as regularly scheduled courses which emphasize group discussion.

In addition to the changes in the content of the curriculum, the new Dean has worked with the faculty to restructure the delivery system of the curriculum. Modules have been "bundled" into courses and are offered as a single unit for registration purposes. Six to ten modules are packaged and sold as the text materials for a single course. Students may register for these courses in the self-paced format or opt to take them in a "group paced" format. Not all modules and courses are offered at all times. Most competency material is taught in the traditional classroom setting. Although in recent interviews (February, 1977)* faculty expressed a desire to "modularize" the competency material, it seems unlikely that this will ever occur. The College has retained some of its flexibility, but it also has departed radically from the flexibility envisioned in the original College IV proposal. Yet as Dean Kindschi points out, the original thrust of College IV was to reach out to the non-traditional student in the dual areas of career skills and the liberal arts. College IV is striving to do that today.

Dean Kindschi has also made two other important changes to the college. Instead of requiring students to complete work at a mastery level of "A" (90%), students may now "select mastery at either the A, B, or C level." There are mastery examinations, much as there were in the original College IV system,

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* See report #23.

and students are still given three attempts to master at their designated level. The criterion-referenced aspect of the system has been retained, but as one student described it, "At College IV students are given three chances for a C." Although the College has retained the terminology of mastery, this new grading system seems to beg the question of "mastery."

Certainly one of the most important administrative decisions that the Dean has made centers on faculty workload and credit generation. Kindschi was quick to realize that College IV must improve its student-faculty ratio. Without this, the College would continue to lose credibility within the GVSC community and its future would be in jeopardy. Working with the other academic units on campus, Kindschi spotted areas that College IV faculty could lend teaching assistance. For example, a biologist could teach anatomy to nursing students in the School of Health Sciences. Another faculty who had considerable experience with student-teacher programs could assist in that certification process. By reducing the FTE count of the faculty within College IV, the denominator of the student-faculty ratio decreases, which in turn raises the quotient. As a result, the relative credit generation of College IV improves significantly.

As is evident, Dean Kindschi has moved quickly and decisively. Major alterations were made in consultation with the faculty and with their total support. After three exhausting years the College IV faculty was looking for strong, forceful leadership. Dean Kindschi has provided this type of direction, and the faculty are laudatory in their praise. As one faculty member said, "Dean Kindschi is an experienced and skilled leader. He took a failing project and made it into a new, vital project."

Today College IV barely resembles the college that opened in September, 1973. Gone is a great deal of the flexibility in the original curricular structure. Students register for courses instead of modules. Classes are a part of the College and so are grades. Although a liberal arts degree is an option, the developmental emphasis is being placed on career programs. This spring College IV has been allotted three additional faculty positions to staff the new career programs. In vivid contrast, none of the other GVSC colleges have been allotted even one position.

Many might say that the modular, self-paced experiment at College IV did not succeed. By some standards that would be accurate. Yet College IV has

preserved an important thrust of the original proposal. As originally intended, today College IV is reaching out to serve the career needs of the non-traditional student. Whether the market exists in western Michigan for these types of degree programs remains to be seen. The future of College IV is literally riding on the enrollments in these career programs.

CHAPTER 6

WHAT HAS BEEN LEARNED?

A valuable by-product of any educational innovation is the learnings which can be gleaned from the experiences. Ideally, others will profit from these learnings and continue to expand the frontiers of education.

After four years, what has been learned from College IV? What has been learned about student development? ....about self-pacing? ....about mastery learning? ....about modular curriculum? ....about faculty roles? ....about the role of tutors? ....about support services? ....about leadership patterns? ....about the determinants of this innovation? This chapter draws on the experiences and the research of the evaluation team to summarize the important learnings from this innovation. These learnings are certainly not unalterable truths. In the evaluation research at College IV no hypotheses were tested. FERA's evaluation process was both formative and exploratory. In that spirit, this final chapter is a critique of the philosophy and ideas on which College IV was founded, particularly as they evolved in the context of the Grand Valley cluster of colleges. The "conclusions" presented here flow from a variety of sources. The primary source is an extensive array of evaluation data collected on many different facets of College IV (see Appendix A). Findings from these data were augmented by the evaluation team's first-hand observations and experiences at College IV. Finally the growing body of literature on self-pacing and PSI added another dimension to these conclusions. In actuality these learnings are hypotheses which await verification in other self-paced environments and educational innovations. Without this, there is no way of testing the generalizability of these findings from College IV.

Most of these findings apply exclusively to self-paced, mastery, or modular systems. However, some of the discussion (e.g., the sections on leadership and environment) is relevant to any type of educational innovation. Hopefully readers can learn from this discussion and apply these findings selectively to their own situation.

WHAT HAS BEEN LEARNED ABOUT STUDENT DEVELOPMENT?

Four major patterns emerged from research[1] which contrasted the development of students at College IV with the development of students at the GVSC College of Arts and Sciences.

1. College IV students changed substantially more in intellectual areas[2] than College of Arts and Sciences students, while the latter group changed substantially more in socio-emotional areas than the former group.
2. Amount of student interaction with peers was not related to student change in College IV, but was related to student change in the College of Arts and Sciences.
3. Amount of student interaction with faculty was related to student change in College IV, particularly in intellectual areas, but was not related to student change in the College of Arts and Sciences.
4. In College IV, the greater an individual's satisfaction was with her/his academic progress, the greater the student change, particularly in intellectual areas.

Student change at College IV and the College of Arts and Sciences appeared to be related to the environmental features of the respective institutions. College IV was designed and implemented around cognitive goals. Most of the College's resources -- financial and human -- were directed toward achievement of these goals and the impact College IV actually had was in these areas.

These four patterns also indicate that intellectual and socio-emotional development need not proceed together in collegiate settings. It has been demonstrated that cognitive development can occur without affective development, yet whether the former occurs at the expense of the latter is still unclear.

Perhaps most importantly, College IV appeared to have a negative impact along socio-emotional dimensions. For example, College IV students became less interested in being with other people; their clear and positive feelings about themselves decreased; and their anxiety level increased. It is important

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1 Most of this section was taken from a dissertation written on College IV by a member of the evaluation team, Theodore Jolosky, "The Impact of a Self-Paced College on Students," (Ph.D. Dissertation, The University of Michigan), 1975. See also FERA report #5.

2 The Omnibus Personality Inventory (OPI) was used to assess these changes.

to note that on these scales the College IV students still fell within the normal range. Other research on the personalized system of instruction has shown affective development to occur within this instructional innovation. But this research is limited in scope, especially compared to the significant amount of research conducted in a variety of settings on the cognitive outcomes of the innovation. In contrast to most other systems where PSI has been tried, College IV was limited in peer interaction. When contrasted to the data on the College of Arts and Sciences, this limited interaction may explain the negative change in socio-emotional areas.* What is not known is whether this negative change is a first step to positive growth in these socio-emotional areas. In any case, the influence which this form of pedagogy has on socio-emotional growth deserves further attention.

WHAT HAS BEEN LEARNED ABOUT SELF-PACING?

College IV students were nearly unanimous in their appreciation for the flexibility of self-pacing. Cross-registrants could schedule their College IV work around the demands of their traditional courses, while full-time College IV students arranged their academic calendars to meet the demands of their personal schedules.

Yet College IV demonstrated unequivocally that most students cannot effectively pace themselves in a totally time-free environment. Students need some minimal structure if learning is to take place efficiently and effectively. Although highly satisfied with the one-to-one faculty contact, students were significantly less satisfied with their own academic progress. As students realized how difficult it was to pace themselves in this environment, many became discouraged and opted out. Simply experiencing high satisfaction with their interactions at College IV was insufficient support for motivating students to complete their academic work.

College IV did not determine whether students can develop the skills necessary to be effective self-pacers. As it became obvious that pacing was a major issue, College IV did make a number of attempts to improve students' pacing skills (e.g., orientation, personal goal setting). However, these attempts fell short of the major program that (in hindsight) seems necessary to teach most

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* For more detail, see report #5 and Jolosky, op. cit.

students how to pace their own work. With a carefully constructed program perhaps individuals could learn to pace themselves. Of those students who were able to pace themselves, it was obvious that they possessed a set of skills which will be useful to them throughout their lives.

Self-pacing can become a lonely experience. When self-pacing and time-free admissions is coupled with modularization, it is unusual for two students to be working on the same material simultaneously. Further, even when two students are at the same point simultaneously, the system does not facilitate communication between them. Thus group interaction around problems or learnings is difficult and there is no "commiserating" as in traditional courses. Hence, most questions are directed to a faculty member or tutor, both of whom have limited time.

In a traditional course there is a certain anonymity within the classroom that is absent in self-pacing. In the classroom, frequently the material not understood is clarified by another student's question and the teacher's explanation. In a self-paced system <u>each</u> student must come forward with any and all questions. In contrast to lock-step systems, a much larger share of the responsibility for learning is placed on students in a College IV environment. Continually being in the "spotlight" like this can lead to the "lonely learner syndrome."

Those students who were successful* in this self-paced mode found a supportive niche at College IV. These students created informal support groups and knew more College IV students than unsuccessful students did. Successful students felt challenged intellectually by their interaction with faculty, whereas students who earned little credit characterized their interactions as cordial and warm but not challenging or stimulating.

College IV and Dean Toft set out to establish the ultimate system in self-pacing and flexibility. Literally there were no time barriers and few space barriers. Students were given the freedom to be only minimally involved with College IV -- or not involved at all. Because of the factors discussed above, many students became "not at all involved." The result was a <u>non</u>-paced system rather than a <u>self</u>-paced one. Although students had the ultimate in personal flexibility, most of them never established a pace. Self-pacing as defined

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* Success at College IV can be defined in many different ways. In this context success is equated to high credit generation.

by College IV placed all responsibility for progress through the curriculum on students. For most students this responsibility was too heavy to bear. While it is true that self-paced systems can break down the access barriers of time and space, a learning environment with a new, different, and very limited structure may not adequately support most individuals in their quest for goal attainment.

WHAT HAS BEEN LEARNED ABOUT MASTERY LEARNING?

Mastery learning is based on the assumption that all students can learn all material if given enough time. The experiences and data from College IV did not confirm or deny this assumption. Rather, the issues surrounding this educational philosophy were clarified. To receive credit at College IV students had to master at least 90% of the objectives for a given module. As Dean Toft frequently pointed out, all College IV students thus were doing "A" level work. Although this may well have been the case, the notion that everyone was receiving A's all the time was not totally accepted. Students questioned the credability of their transcripts containing all "M's" and became concerned with how employers and other schools would accept them. A few factuly even raised questions saying that students ought to have the option of doing less than A level work.

By adopting a mastery system College IV only certified that its students had completed work. Proudly, College IV did not accept the additional responsibility of selecting and sorting its students as a traditional grading system does. Yet the evaluation team sensed that even when all grading was eliminated, "time to completion" would eventually become the new "G.P.A." (e.g., "She went through the curriculum in 2.75 years!").

College IV did seem to demonstrate that criterion-referenced learning resulted in a partnership between students and faculty. Faculty no longer assumed the responsibility of ranking or "norming" students. Working together, students and faculty sought to master the objectives of a module. It was also obvious at College IV that a criterion-referenced system removed much of the competition between students. They assisted each other in mastering the objectives of a module, knowing that their performances would be independently evaluated.

It is difficult to say whether the mastery system at College IV removed the "anxiety of grades," as stated in the original proposal. Students did express

a high degree of self-confidence about passing their mastery examinations. Yet, as discussed earlier, the anxiety of learning was heightened by the self-paced aspects of the system which placed all responsibility on the student. In a sense grade anxiety had been transferred to pacing anxiety, a less competitive but equally immobilizing force.

Mastery is a complex, philosophical topic. It totally alters the fundamental assumptions of today's educational system. Changes of this magnitude face systemic obstacles and substantial opposition ranging from college support systems to employer expectations for grades, from federal requirements for veterans benefits to state determinants of enrollment levels. Nevertheless, College IV showed that mastery learning can make education a more supportive process.

WHAT HAS BEEN LEARNED ABOUT MODULAR CURRICULUM?

No single activity consumed more faculty time or more energy than the writing of curriculum modules. Undoubtedly the College should have given more consideration to using modules which were commercially available rather than producing nearly all modules *de novo*.

College IV did demonstrate the portability of a modular curriculum. Modules were studied in prisons, at home, in the module mobile, and on the job. The only "boundary" to instruction was the availability of faculty and tutors to respond to questions, and College IV attempted to minimize this drawback by installing direct phone lines and extending the number of hours the college was open.

In seeming contradiction College IV pointed up both the flexibility and inflexibility of modular curriculum. Because academic content was divided into small units, students had the flexibility of creating a unique curriculum which met their special interests. For example, modules from economics, sociology, and mathematics might be combined to form a program of study on modeling population trends. To what extent this happened at College IV is unknown. College IV also demonstrated the inflexibility inherent in preprinted auto-instructional modules. Prepackaged materials require each student to follow the same instructional path, complete the same activities, and take a similar mastery exam. In contrast to the classroom, because modules were auto-instructional, the presentation of material could not be modified according to how the "class" was accepting it.

If there ever was any doubt, College IV demonstrated that subject matter

from any discipline can be taught using modular format. Humanities curricula as well as social sciences and natural sciences were effectively taught via modules. The College IV experience did not demonstrate whether subtle, advanced concepts of a topic could be taught using auto-instructional modules. Moreover, College IV had planned to use group tutorials and contract study for this portion of its curriculum.

When a modular curriculum is produced in a standard format it has the potential to become boring. All modules at College IV were printed in an identical format, and students complained about the lack of variety in the appearance of their text materials. With all modules being standard in format, all being printed, and all being self-instructional the modular process was highly repetitous.

A modular curriculum such as College IV's is oriented toward reading skills. With all materials in print form and little if any group interaction, learning took place by reading the written word. Although no specific research was done on this issue, it may be hypothesized that students with poor reading abilities would have a more difficult time in this modular curriculum than they would have in a traditional instructional environment.

Originally it was proposed that the modular curriculum with its small units of subject matter would eliminate curricular redundancy. For example, if differential equations was required for both physics and mathematics, a single module should suffice for both disciplines. Thus, it was proposed that College IV would reduce the amount of "instruction" a college must offer for a liberal arts degree. This efficiency was never adequately tested at College IV. A few mathematics modules were incorporated into the hierarchies for biology, but a thorough testing of this concept could not take place without the curriculum being fully developed.

WHAT HAS BEEN LEARNED ABOUT THE ROLES OF FACULTY?

At College IV faculty had three major roles to fulfill. They had to construct a modular curriculum, tutor students, and attend to the myriad of chores necessary to establish a new college. Taken together, this resulted in "role overload" for the faculty. Since all these responsibilities were essential for the development of the college, it was difficult to assign priorities. Many of the pressures were circular. The more that faculty tutored, the greater the

pressure was to produce curriculum. Increased lead time to develop curriculum would have broken this exhausting cycle. From the experiences at College IV, it was learned that faculty should not be expected to author curriculum materials and simultaneously assume a heavy tutorial load. These two activities require a different mind set, are very energy draining, and are so important that they each demand the faculty's best effort. If the College could turn back the clock, a method should be found for handling these responsibilities sequentially without overloading the faculty.

The combination of the roles of curriculum author and teacher carries with it some implicit assumptions that can be challenged. When these roles are combined, a faculty member must possess both curriculum authoring skills and teaching skills. Yet a good author of modules is not necessarily an effective teacher nor vice-versa. Dean Toft did discuss the possibility of separating these roles. To some extent this took place at College IV with visiting faculty authoring modules that permanent faculty then taught. From all indications this "team model" worked well and deserves further consideration.

To be an effective faculty member in a self-paced system requires a different mix of skills than those utilized in the traditional classroom environment. Interpersonal skills take on added importance. For example, at College IV nearly all student-faculty interaction was on an individual basis. Hence faculty had to feel comfortable in one-to-one tutorials. Moreover, each student comes to a tutorial with a different set of needs and a different set of expectations. An effective faculty member must perceive these differences and structure a tutorial accordingly. Because there is no fixed length for a tutorial like there is for classes, students will often take as much time as the faculty member will give them. Therefore, as one faculty member said, "You must be able to say 'no' to students." It requires interpersonal skills to "manage" the tutorial so that the questions of the student are answered and the faculty member still has time for other students and her/his own work. These strains are present in the traditional role of faculty, but they are greatly accentuated in a self-paced system.

WHAT HAS BEEN LEARNED ABOUT THE RCLE OF TUTORS?

Tutors at College IV were paraprofessionals who were undergraduate majors in the discipline in which they were tutoring. Initially, juniors and seniors

from one of the cluster colleges were selected, but as students progressed through the curriculum tutors were also selected from College IV. Usually a faculty member had only one tutor working with her/him. These individuals performed a variety of tasks including tutoring, lab work, grading mastery exams, running errands, and in some cases writing modules. By paying tutors, College IV differed from the standard PSI format which utilizes volunteer students who have recently completed the assigned materials. By constructing a work environment for students complete with posted office hours and pay for their work, it was felt the tutors would take their responsibilities more seriously. In actuality the effectiveness of tutors varied substantially. Some tutors complained about being under-utilized. As one said, "I spend too much time being available." Tutors lacked a thorough orientation to their job and their effectiveness seemed to be impaired by a concise definition of their role.

From the research data it is obvious that if a College IV student had a choice, they usually would seek out a faculty member for tutoring rather than a student tutor. Students enjoyed contact with faculty and felt as if they were dealing with the real authority on the topic. In retrospect, the creation of a paraprofessional role for tutors may have expanded somewhat the responsibilities assigned to these course "proctors" (in PSI parlance). On the other hand, this slightly altered role did not seem to markedly improve the quality of tutoring beyond what is expected from other PSI formats.

WHAT HAS BEEN LEARNED ABOUT SUPPORT SERVICES?

At College IV each support service was introduced to the ideas and requirements of self-pacing before the College opened. However, neither College IV nor the support services took these discussions the necessary next step and planned in detail for the establishment of self-paced support systems. In its first year, College IV did not have the necessary administrative staff to monitor the development of support services. Consequently these services impeded rather than facilitated the development of College IV. After the frustration of the first year, an assistant dean was appointed who spent a majority of his time developing the necessary support services. Although the importance of support services was recognized at College IV, no one realized the significant amounts of time and energy they would demand. Hindsight shows the

importance of including adequate administrative staff to work with the support services on campus.

Many of the procedures in a lock-step system are built upon the assumptions of fixed intervals and regular occurences. For example, grade slips are printed once a term and admission decisions are made at fixed intervals. In a self-paced system, all these procedures are done on a rolling basis. Theoretically, any part of the educational process from matriculation to graduation could occur on any given day.

Self-paced systems and modular systems place extremely heavy demands on record-keeping, media, clerical services, and printing. In a modular curriculum each credit (or half credit as at College IV) may require an entry onto the student's transcript. With new "grades" being posted every day and new students entering the college at any time, all record-keeping systems must be interactive. Data processing services must be changed to support this new need. Video and audio cassettes are natural applications for self-paced instruction, and therefore heavy use may be made of media services. Admissions, financial aid, and the conseling staff must understand the implications of being a student in a self-paced system.

Since nearly all modules require some printed materials, a modular system can place extremely heavy demands on clerical services and the campus printing shop. All modules must be typed and the art work completed. Then the print shop must fit this module into its overall schedule. At College IV these final steps sometimes became bottlenecks, frustrating professors who had worked extra hours to complete a module. It has been estimated that College IV printed over one million pages!

WHAT HAS BEEN LEARNED ABOUT LEADERSHIP PATTERNS?

College IV experienced three different leadership styles. Dean Toft was the founder of the College, and his imagination and creativity spawned this unique institution. He was an initiator but had difficulty stabilizing this new organization. Dean Arendsen maintained the institution while waiting for a new dean to be selected. During his tenure the administrative systems of College IV were improved and the College's curriculum was conceptualized around both generic competencies and vocational/professional programs. Arendsen's

most critical role was to maintain the development of the College in the face of often conflicting pressures from the central administration and the College IV faculty. He was delegated the role of maintainer.

In contrast, to date Dean Kindschi's role has been that of an implementor. Immediately after assuming the deanship, Kindschi worked with the faculty to make some fundamental changes to the College. Modules were bundled together as courses, a graded form of mastery was adopted, and plans were laid for the continued expansion of the vocational components of the curriculum.

College IV has witnessed what many educational innovations have experienced. The initiator who spawns the idea and gives it some structure is often not the best person to implement that idea. Many new programs have experienced this same rapid transition in leadership. Perhaps a leadership team of a dean and associate dean which includes the talents of an initiator and implementor would serve the changing needs of new programs. Ideally, programs should examine their leadership needs and prepare for the necessary transitions. Leaders also must be conscious of "shifting gears" as the institution develops, or to step aside when it becomes appropriate.

WHAT HAVE BEEN THE MAJOR DETERMINANTS OF THE EVOLUTION OF COLLEGE IV?

This final section serves as a summary statement for this entire report. It highlights those factors which were most influential in the development of College IV. It was these factors acting in concert which led to the College's present environment.

A. At its inception College IV accepted two major tasks: creation of a new institution and creation of a new pedagodical system. The creation of either one would have represented a tremendous undertaking in and of itself. To provide maximum freedom and efficiency for this new pedagogy, it made good sense to establish a new college. This decision certainly cannot be faulted. Yet the parallel development of both systems overloaded College IV's small staff and created an environment which was very demanding.

B. Throughout its first four years, College IV was influenced by its initial lack of curriculum development. Because the College opened when its freshman curriculum was still being written, throughout the first year faculty felt the dual pressure of producing curriculum and tutoring. If the college was to reach stability, both of these responsibilities had to be met. If the College had opened with its freshman curriculum intact, faculty could have devoted their full energies to tutoring students, tackling the procrastination problem, and attending to administrative duties. As a result, credit generation may have improved substantially.

C. The small size of the faculty placed an extremely large set of responsibilities on each individual. Although College IV envisioned itself as a liberal arts college with a wide variety of academic disciplines, it opened with only seven faculty members. Thus each faculty member comprised a one-person department which was responsible for developing an entire curriculum hierarchy. In addition all administrative responsibilites and college-wide educational policies were handled by these seven faculty. Although this faculty was certainly capable of handling this diversity of responsibilities, the small number of individuals meant that inevitably some important tasks remained undone or at least could not command the high energy level they required.

D. The faculty at College IV have maintained harmonious working relationships throughout the first four years. The original seven faculty members came to College IV with a commitment to students and unbridled enthusiasm for this new form of education. This spirit unified these professionals so that there was a free give and take of ideas. The faculty were able to grapple with the most difficult issues with openness and candor. This supportive environment added an important degree of stability to these exhausting opening years, and provided the educational environment with a warm and friendly spirit.

E. Over the four years different faculty members have adapted to the College's evolution in different ways. Three different patterns of adaptation seem to characterize the faculty. First, three of the original seven faculty members have left College IV. For example the former dean, Carl Arendsen, is leaving to teach mathematics in one of the GVSC cluster colleges. One faculty member's contract was not renewed and a third member moved on to another college. A second group of faculty has merely accepted the changes to College IV. They realized that changes to the original structure had to be made if College IV was to survive. Yet they have done so less than enthusiastically. Their love is with the liberal arts, and College IV's movement toward vocational programs signals a shift in this commitment. Some of these faculty will probably leave if the opportunity arises. A third group of faculty have enthusiastically embraced the recent developments. They are enjoying their work on competencies and looking forward to the growth and stabilization of College IV.

F. College IV emphasized its pedagogical system at the expense of developing and publicizing the outcomes of its educational program. For a variety of reasons, at College IV the means of education -- self-paced, modular instruction -- became the end. Faculty had been hired because of their commitment to this innovative form of instruction. Although these individuals were commited to the liberal arts, their focus was on offering discipline material in a self-paced format. Second, College IV was publicized as a "do it at your own pace" institution. This feature was the overriding reason that students selected College IV, with the academic content of the program ranking significantly lower. Finally, College IV received a significant amount of national attention nearly all of which was due to its time-free, space-free format. Evaluators, consultants, a national advisory board, and

interested educators all visited the campus and scrutinized College IV. Most of the outsiders' curiosities focused on self-paced, modular instruction. With these factors at work it is not surprising that the means of this innovation became its end.

Undoubtedly the convenience and flexibility of time-free, space-free instruction were attractive characteristics to students, but these students also demonstrated that pedagogy alone will not serve as a substitute for academic progress and content. In the first few months of College IV a number of students began to question the value of a degree from College IV. Without prior agreement on the degree structure, College IV faculty and administration discussed many different educational programs ranging from a traditional liberal arts degree to vocational programs. This continuing discussion consumed countless hours of energy and deflected attention from other important tasks. This uncertainty did result in an atmosphere of freedom from which a range of competency-based degree alternatives have emerged.

G. A spirit of enthusiasm and dedication characterized the individuals associated with College IV. One of the most important intangibles that influenced the environment at College IV was the tremendous enthusiasm and commitment which faculty, tutors, students, and administrators showed for this new institution. People worked incredibly hard, long hours. Students recognized that their personal needs were the focal point of this pedagogical system, and they were grateful for the opportunity to study at their own pace. All people associated with College IV enthusiastically joined forces to develop this new institution.

H. Perhaps most importantly, GVSC lacked a strategy for developing College IV. The ideas and philosophies underlying this college were well articulated, but strategies for

implementation and development were not carefully planned. College IV as a total success had been discussed, but in the planning little attention seems to have been given to alternative developmental strategies.

Prior to opening, a growth pattern should have been worked out which was acceptable to the GVSC central administration and to the state officials. Target figures for enrollment and credit could have been set which would have given the College freedom to develop its program and its student base. As it was, College IV had a very short grace period. Within two years of opening, College IV was being asked to "pull its own weight" within the cluster. Before the entire curriculum had been developed, alternative curriculum programs were being discussed. With a detailed strategy for institutional development which was carefully monitored, many of these pressures might have been minimized as each year College IV set out to attain its goals for growth. Looking back, evaluation might better have served College IV had it forced this issue earlier.*

CLOSING STATEMENT

College IV represents an interesting chapter in American higher education. The creators of this institution challenged many of the time honored assumptions on which traditional education is based. Indeed, College IV set aside many of the structural elements which have constrained post-secondary education from reaching its fullest potential. The imagination of Bob Toft and the backing of Arend Lubbers were instrumental in creating this institution. GVSC, FIPSE and NSF should take credit for providing the support necessary to establish this alternative means for accessing education. Although many may regret that College IV has not retained more of its self-paced, modular approach, it should not be forgotten that this is but one alternative for opening access and

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* See report #18.

increasing the flexibility of post-secondary education. As the original proposal stated, College IV was established to reach out to non-traditional students and provide them with an opportunity to upgrade their vocational skills. An ever-changing societal milieu, external pressures, mistakes and inadequacies in the original model have forced changes on College IV. Hopefully these changes are leading the College toward increasing enrollments and stability.

APPENDIX A

Annotated Bibliography of

College IV Evaluation Reports

FERA
Formative Evaluation Research Associates

1130 Hill St.
Ann Arbor, Mich. 48104
Phone: 313-994-9060

Richard Heydinger
John Seeley
Margaret Talburtt

ANNOTATED BIBLIOGRAPHY OF COLLEGE IV EVALUATION REPORTS MAY, 1977

This annotated bibliography summarizes the evaluation reports which FERA completed for College IV. The reports have been grouped topically and are listed in chronological order.

These reports may be purchased from FERA for the cost of duplication and postage. The cost of single reports is given in the right-hand margin. In ordering reports, it is important to note that these papers were written as action-research reports for College IV. They were not authored for a general audience. Therefore, some of the reports are terse and do not provide a context for the findings, while others explain methodology and discuss the findings in some detail. As a rule of thumb, it can be assumed that the lengthier reports (i.e., those exceeding ten pages) are written more in the style of academic research reports than the shorter ones. The findings from all the reports are synthesized and cross-referenced in the final FERA report, "College IV: The Evolution of an Experiment in Self-Paced Instruction." To order the final report (cost $6.00) or any of the research reports write FERA at the address above. Specify which report(s) you are ordering by using the number in the left margin of the bibliography. We would appreciate it if orders were prepaid.

College IV: The Evolution of an Experiment in Self-Paced Instruction

Appendix Volume I: Student Development and Pacing

1. College IV: An Overview of Strengths and Problems — 4 pages $ .50

   December, 1973

   Summarizes data collected from a random sample of 31 students two months after the opening of College IV. Focuses on satisfaction with College IV, satisfaction with academic progress, and strengths and weaknesses of the college.

2. Descriptive Measures of the College IV Students — 61 pages $6.00

   January, 1974

   Summarizes data collected from a comprehensive set of survey instruments distributed to all College IV matriculants.

3. College IV: Preliminary Student Interview Summary — 4 pages $.50

   June, 1974

   Discusses the "successful" and "unsuccessful" College IV student including a comparison to cross-registrants from other GVSC colleges. Data was collected from a series of interviews with students throughout the opening year.

4. On-Going Student Process Component: An Opening Statement of Explanation and Synthesis — 27 pages $2.50

   August, 1974

   An overview of the methodology and findings from the research component which traced students throughout their first academic year. Summarizes the findings from this series of interviews.

5. Making Progress: College IV and College of Arts and Science Student Data One Year After Entrance — 76 pages $6.50

September, 1974

Compares the impact of College IV on its students with the impact of GVSC College of Arts and Sciences on its students. A broad range of measures are used including reasons for attending college, study habits, satisfaction with college, and the Omnibus Personality Inventory.

(NOTE: For those interested in a detailed treatment of the impact of College IV on its students as contrasted to the impact of the College of Arts and Science at Grand Valley, see "The Impact of a Self-Paced College on Students," Theodore Jolosky, unpublished Ph.D. dissertation, University of Michigan, 1975, 375 pp. This detailed research further analyzes the findings cited in reports 1, 2, and 5 and places them in the context of American higher education.)

6. College IV Students and Their Reactions — 19 pages $2.00

May, 1975

Compares the characteristics of the students entering College IV in the Fall of 1973 with those entering in the winter of 1975. Also includes results of student interviews.

7. The Evolving College IV Student Body — 8 pages $1.00

December, 1975

Examines the students entering College IV between January and June, 1975 across a number of demographic characteristics. Credit generation information is also included.

8. Recommendations to College IV on Student Pacing — 11 pages $1.00

February, 1976

Presents a series of handouts from the final evaluation workshop with College IV. Information on student pacing is presented which contrasts high credit earners to low, zero credit earners to non-zero credit earners. Recommendations for increasing the effectiveness of student pacing are presented.

College IV: The Evolution of an Experiment in Self-Paced Instruction

Appendix Volume II: Curriculum Evaluation

9. Module Evaluation Module — 8 pages $1.00

September, 1973

Outlines a proposal for evaluating the College IV curriculum.

10. College IV Curriculum Report — 26 pages $2.50

February, 1974

Presents pretest data on students' reactions to the College IV curriculum.

11. Student Reactions to College IV Modules — 7 pages $ .50

June, 1974

Summarizes students' evaluations of the College IV modules.

12. Module Evaluation Statistics — 9 pages $1.00

April, 1975

Summarizes students' evaluations of the College IV modules.

13. Faculty/Peer Module Review System — 6 pages $ .50

January, 1975

Documents the procedures used in having external judges evaluate the College IV curriculum. Actual results have been held in confidence and are not given.

College IV: The Evolution of an Experiment in Self-Paced Instruction

Appendix Volume III: Faculty and Professional Roles

14. Role Structures in a Collegiate, Modularized Self-Paced Mastery Environment — 44 pages $4.50

April, 1974

Examines in detail the roles of the faculty, student tutors, and the Dean at College IV. Role strains are highlighted and organizational implications are drawn from the data.

15. Faculty Activity Analysis in a Modularized Self-Paced, Mastery Environment — 35 pages $3.50

August, 1974

Presents data on how faculty spent their time, the effort expended, and perceptions of their best work and poorest work.

16. The Faculty/Administrator Evaluation System of College IV — 46 pages $4.50

April, 1975

Documents the faculty evaluation system which College IV and FERA designed conjunctively. Examples of all collection and feedback forms are given.

College IV: The Evolution of an Experiment in Self-Paced Instruction

Appendix Volume IV: Goals and Other Reports

17. College IV Goals Report — 25 pages — $2.50

January, 1974

Presents results from a survey of institutional goals conducted across all constituencies associated with College IV including external funding agencies. The data was collected immediately preceeding the opening of College IV.

18. Making Progress: An Interim Assessment of Goal Achievement at College IV — 38 pages — $4.00

September, 1974

Contrasts College IV goals with research data that provides evidence of goal attainment after one year of operation. Data is aggregated from a number of other FERA research reports.

19. Institutional Goals Survey — 3 pages — $ .50

December, 1975

Presents the handouts used at an evaluation workshop which summarized the goal attainment of College IV, as assessed by faculty and professional staff.

20. A First Look at College IV's Organizational Functioning — 28 pages — $3.00

September, 1974

Presents data collected from College IV professional staff and central administration on the operation of College IV. Perceived and desired levels of influence were measured; the interface between College IV and its support services is discussed; and the organizational problems facing College IV at the end of its first year are presented.

21. College IV As an Open Access College — 21 pages — $2.00

September, 1974

Examines College IV's progress at eliminating the traditional barriers of access to a post-secondary education. Report was written at the end of College IV's first year.

22. College IV Strengths and Weaknesses: Faculty, Student, and Administrators View Their College — 5 pages — $ .50

May, 1974

Highlights the strengths and weaknesses of College IV as assessed by faculty, tutors, and administrators in early March, 1974.

23. College IV Strengths, Weaknesses, and Challenges — 7 pages — $ .50

February, 1977

Verbatim responses of faculty, tutors, and administrators on the strengths, weaknesses, and challenges of College IV.

APPENDIX B

The Philosophy of College IV*

*Taken from College IV's 1973-1974 Catalog.

PHILOSOPHY OF COLLEGE IV

College IV seeks to develop in its students a spirit of curiosity about life, a longing to search for truth and beauty, and a respect and tolerance for the judgment of their fellow man. The college offers many pathways toward the enrichment of life and fulfillment of goals. Although the journey is essentially a solitary one for each person, the travel can be made easier by the gentle guidance of others. Recognizing that skills and attitudes are developed largely through interaction with others, College IV employs a series of instructional tools to enhance that interaction and to bring about the optimum development of the individual student's capabilities.

Much of the potential of our education fails to be realized because of the restrictions of form which have been placed upon the system. College IV has thrown away the lecture platform and class schedule, freed the student and the professor from the drudgery of fact-passing, and engaged them both as partners in the learning process. Students are given a greater choice in determining content, modes and time of study. College IV encourages the development of self-motivation and dependence on personal initiative.

Students seeking a baccalaureate degree should be exposed to the major products of man's mind and to the wonders of the universe. They should develop a comfortable acquaintance with both their physical surroundings and their culture. They should demonstrate their competence in some coherent area of study. They should come to possess those vocational and intellectual skills necessary to make them productive members of society.

Many individuals have goals which may lead them to seek an education which does not conform to a traditional pattern. For those whose interests do not lie along the lines leading toward a degree College IV offers endless varieties of study programs to fulfill those interests. No amount of study is too small to be considered in College IV. No area for which it has materials and expertise is too specialized to be offered. College IV encourages the creation of innovative programs of study to meet the special needs of its students.

An important intellectual tool is the ability to set clear goals for oneself. The format of College IV is designed to give great emphasis to the development of the skills necessary to set achieveable goals. An integral part of goal analysis is the assumption that goals, once set, will be achieved. Task completion is the logical extension of goal setting. The use of mastery learning in College IV will assure that task completion is both practical and rewarding.

College IV subscribes to the idea that education should be available to all who can derive benefit from it. To facilitate this the admissions criteria for College IV are flexible. Evidence of ability and intent are as important as past performance. Obviously, personal drive and motivation must be high to succeed in College IV, but given those attributes, the potential rewards in freedom of choice are enormous.